Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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LECTURE II.—PART VII.

ON PARALYSIS LIMITED TO A LIMB OR TO SOME MUSCLES.

Facial paralysis caused by brain disease above the pons Varolii can exist without paralysis of limbs—Facts showing that paralysis of the face alone can be caused by disease in most parts of the brain, and especially in cases of lesion of either the anterior, the middle, or the posterior lobe, or the corpus striatum, the optic thalamus, and the crus cerebri—Frequency of paralysis of the face alone in cases of disease of the convolutions of the brain—Facial paralysis on the side of the brain-lesion in cases of disease of the middle lobe, the corpus striatum, the crus cerebri, &c.

BEFORE speaking of facial paralysis due to disease of some part of the brain above the pons Varolii, and appearing on the side of the lesion, as it does in cases of disease of the trunk of the nerve out or in the pons, I must show that paralysis of one or even of the two sides of the face can be produced without paralysis of limbs by a lesion located in the most various parts of the brain. The two cases I have mentioned already show that disease of the corpus striatum can give rise to a more or less complete paralysis of the face. In the following cases the lesion was also in that part of the cerebrum. In a case of which I will speak again in the next lecture, an able physician, Dr. Bristowe,[1] found only a paralysis of the face and tongue, although there was a very large hydatid cyst, nearly two inches in diameter, which had sprung from between the left corpus striatum of the island of Reil, and extended upwards. In a remarkable case, Prof. Gintrac[2] found no paralysis except of the right side of the face, caused by an effusion of blood in the left corpus striatum. The clot measured five centimetres by three, and the tissue was altered round it. There was a paralysis of the left side of the face, with stiffness of the limbs and persistence of voluntary movement, in a case of inflammation of the right corpus striatum and of the neighbouring cerebral tissue, recorded by Roikem.[3] In another remarkable case of Gintrac's,[4] the two sides of the face were paralysed before the limbs, the lesion being softening of the two corpora striata.

Many cases in which disease of the optic thalami has caused facial paralysis are also on record. My friend, Dr. John W. Ogle,[5] found no other paralysis except of the left side of the face and of the left upper eyelid in a case of tumour which had destroyed the right optic thalamus and a great deal of the right crus cerebri. Richoud,[6] in a case of paralysis of the left side of the face, without paralysis elsewhere, found the right optic thalamus uneven, of a greyish, unnatural colour. Besides that lesion, however, there was meningitis on the right side, and a tubercle in the centre of the cerebellum. There was also a complete facial paralysis without loss of movement of limbs in a case of Diday's,[7] in which the disease was in one of the optic thalami. In addition to those cases in which there was disease in one of the two ganglia forming part of the floor of the lateral ventricles, I will mention a case in which these two ventricles were distended by fluid, and in which there was paralysis only of the face (the right side).[8]

There are cases of disease of either the anterior, the middle, or the posterior lobe of the brain, in which no other paralysis was found than a loss of movement of some or most of the muscles of the face. In a case of a large abscess of the left anterior lobe, Dr. C. E. Seguin,[9] of New York, found only a facial paralysis. Chomel[10] found also paralysis limited to the face in a case of sclerosis of the anterior lobe. There was no paralysis except of the right side of the face in a case of Berghmann's,[11] in which the left anterior lobe of the brain, and part of the right also, were destroyed from a fracture of the frontal bone. Hayem,[12] in his important essay on encephalitis, gives a case of inflammation of the right anterior lobe, in which for a day the limbs remained free from paralysis, while the left side of the face was paralysed. In many other cases, some of which I will soon mention, the face was the only part paralysed from disease of the convolutions of the anterior lobes.

As regards the middle lobe, I will briefly say that cases of disease of that part having caused only a facial paralysis are recorded by Prost,[13] by Notta,[14] by S. Solly,[15] by Dufour,[16] by Griesinger.[17] Of those cases, the last was one of abscess, the first of softening, and the others of tumour. In a case of abscess in the middle part of the left hemisphere, Dr. Caron[18] found no paralysis except of the face.

Disease of the posterior lobes also can produce paralysis limited to the face. In a case of De Laudeta's,[19] the right side of the face was paralysed before the appearance of paralysis in the right limbs, caused by a number of small tumours under the dura mater crushing the convolutions of the left posterior lobe. Both cheeks were paralysed, while some muscles of the face were seized with trembling, in a case of softening of the white substance of the left posterior lobe recorded by Durand-Fardel.[20] In an interesting case of hydatids occupying part of the right posterior and middle lobes, Dr. J. R. Bennett[21] found only a paralysis of the face. In a case of abscesses in each of the posterior lobes and in the left anterior lobe, Abercrombie[22] found no other paralysis than a sudden one of the left side of the face, which soon disappeared.

I will now give a number of cases in which a lesion of those convolutions of the anterior and middle lobes which have lately been considered as the psycho-motor centres of the face, the tongue, and the limbs, has caused a paralysis limited to some parts of the face. If I were treating of the question of localisation of the will-power in the cerebral convolutions, I would show that lesions limited to the same part of the surface of the brain in different individuals will produce no paralysis in some, and will cause in others a paralysis of either the face or the arm alone, or of both together, or of the arm and leg and not of the face, or of the face and arm and leg simultaneously. My object being different, I will content myself by showing that a paralysis limited to the face may arise from a lesion not only of the convolutions considered as the psycho-motor centres for the face, but also of those supposed to be the centres either for the arm, or the leg, or the tongue, or the head, or the eyes. Some of the facts are in harmony with the supposition of Dr. David Ferrier,[23] that the psycho-motor centre for the muscles surrounding the mouth is located in the lower part of the two ascending convolutions that border the fissure of Rolando. Other facts, in larger number (but the number of cases is here a matter of secondary importance, as one clear case would be a sufficient argument to overthrow Dr. Ferrier's supposition), are, on the

[1] Pathological Society's Transactions, vol. xxiv., p. 8.
[2] Loc. cit., vol. vii., p. 149.
[3] Répertoire d'Anatomie, &c., de Breschet, vol. i., p. 108, quoted by Gintrac, loc. cit., vol. viii., p. 332.
[4] Loc. cit., vol. ix., p. 360.
[5] Transactions of the Pathological Society, vol. iv., p. 21.
[6] Influence de l'Estomac sur la Production de l'Apoplexie (Paris, 1824), p. 95.
[7] See Duplay's paper on Facial Paralysis, already quoted, p. 12.
[8] Copeman's Collection of Cases of Apoplexy, p. 44.
[9] Quarterly Journal of Psychological Medicine (New York), January, 1868, p. 113.
[10] Quoted by Gintrac, loc. cit., vol. ix., case lix., p. 460.
[11] The American Journal of the Medical Sciences, October, 1873, p. 544.
[12] Thèse sur l'Encéphalite (Paris, 1869), p. 70.
[13] Médecine éclairée par l'Ouverture des Corps (1804), vol. ii., p. 75.
[14] Bulletins de la Société Anatomique (1847), vol. xxii., p. 342.
[15] The Human Brain (second edition, 1847), p. 658.
[16] Archives Générales de Médecine, &c. (1828), vol. xvii., p. 243.
[17] Archives, just quoted (1860), p. 672.
[18] Bulletins de la Société Anatomique (1852), vol. xxvii, p. 207.
[19] Bulletins de la Société Anatomique (1862), p. 506.
[20] Traité du Ramollissement du Cerveau, p. 113.
[21] Transactions of the Pathological Society, vol. xiii. (1862), p. 5.
[22] Loc. cit., p. 99.
[23] The Functions of the Brain (London, 1876), pp. 143, 203, 304, et seq.

contrary, in decided opposition to the views held by that able experimenter as regards the seat of the various psycho-motor centres. I begin with the cases that seem to be favourable to the supposition he has put forward about the centre for the movements of some facial muscles. A man, whose case is given by Bourceret and Cossy,[24] was attacked with aphasia and paralysis of the right side of the face. For a short time only he had a paralysis of the right arm. He died of a tumour three centimetres in diameter, which was found in the posterior part of the left second and third frontal convolutions and in the adjoining parietal convolution. In a case of Dieulafoy's[25] there was temporary aphasia and persistent paralysis of the zygomatic muscles and of the upper lip on the right side. No other paralysis. The lesion consisted in two very small cysts, close by the left third frontal convolution. In a case in which, after a fracture of the frontal bone, an abscess was formed in the left anterior lobe, Dr. Barraquê[26] found that the face alone was paralysed. It may be that in this case the so-called psycho-motor centre for the face was injured, but, unfortunately for the theory, it was the left side of the face that was paralysed, and not the right. In a case of Hervey's[27] there was no other paralysis but in the right side of the face and the tongue, caused by a small patch of capillary apoplexy in the grey matter of the left ascending frontal convolution near the third frontal. Fontaine[28] gives a case of sudden paralysis of the right side of the face, with alteration of speech, caused by an abscess, the size of a nut, in the superficial part of the convexity of the left frontal lobe. In a case of Hersent's[29] something different occurred; the right side of the face was seized with paralysis, but the next day the right limbs became paralysed, and the facial palsy disappeared. The lesion consisted in two abscesses, one between the dura mater and the cranium, the other in the arachnoid cavity. In a case of softening of the convolutions along the left fissure of Sylvius, Rizzi[30] noticed no paralysis but in the right side of the face In a case of considerable effusion of blood between the dura mater and the arachnoid, pressing on the convolutions under the occipital, temporal, and parietal bones on the right side, Blin[31] found that there was more paralysis in the face and tongue than in the limbs. Lallemand,[32] in a case of meningo-encephalitis limited to the left anterior lobe, found no paralysis except of some of the right facial muscles.

In most of these cases there was an alteration of either the frontal or the middle lobe, in the neighbourhood of the fissures of Rolando and of Sylvius. One of the reasons for the frequency of that seat is evidently that disease in the meninges of those fissures is more frequently found than in other parts of those membranes. Two objections against the views of the localisers issue from the facts I have mentioned. The first is that a lesion located in other parts of the surface of the anterior and middle lobes than that which is supposed to contain the psycho-motor centre of the lower facial muscles, has produced a paralysis limited to the face; the second is that no paralysis of the arm or leg has been caused by lesions of the facial centre, but of parts supposed to contain the psycho-motor centres of the limbs. I will return to this subject when I give cases of disease of convolutions having produced paralysis of the face with paralysis of one or of two limbs. I now pass to the subject of direct facial paralysis.

Beginning with cases in which there was disease of the convolutions, I will first mention a case of paralysis of the face and limbs on the *right* side, in which Dechambre[33] found no other lesion but a considerable softening of three or four convolutions near the posterior extremity of the *right* hemisphere. Gibert,[34] in a case of paralysis of the limbs and face on the *left* side, found three abscesses in superficial parts of the *left* hemisphere. In a case of Sir William Gull's,[35] there was a facial paralysis on the *right* side, with weakness only of limbs (more marked in the left ones). The convolutions of the *right* hemisphere were flattened; near the surface of the anterior extremity of that hemisphere there was an abscess containing three drachms of pus. In the white substance on the same side there were four small abscesses and another on the left side of the cerebellum.

Of the three lobes of the brain, the middle ones and parts in a great measure contained in them are those which most frequently give rise to a paralysis of the face and limbs on the side of the lesion. In a carefully recorded case of Dr. Peter Eade's[36] there was paralysis of the face and limbs on the *left* side, allied with alterations, caused by a tumour and a clot and softening in the *left* corpus striatum and around it. A slight alteration of the right corpus striatum existed also. Dr. F. de Pury[37] has published a case of facial paralysis on the *right* side, apparently caused by a tubercle in the *right* corpus striatum. In a case of paralysis of the limbs and face on the *left* side, Prost[38] found the *left* corpus striatum pulpy and infiltrated by fluid. In two cases of considerable alteration of the *centrum ovale*, one given by Dechambre,[39] the other by Desgranges,[40] the face and limbs were paralysed on the side of the lesion. In a case of Abercrombie's[41] there was paralysis of the face only on the *right* side, and a tubercle was found in the centre of the *right* middle lobe, partly surrounded by pus and softening. Broussais,[42] in a case in which there were several abscesses in the *left* middle lobe, found paralysis of the *left* side of the face. In this case, however, the paralysis of the limbs, which occurred after that of the face, appeared on the right side. To conclude this enumeration of facts I will say that two very carefully recorded cases have been published, one by Dr. H. Day,[43] the other by Diday, of Lyons,[44] in which a good part of the middle lobe (the right in one case, the left in the other), including the corpus striatum, was considerably altered, and in which there was a paralysis of the face and of the limbs on the side of the lesion.

Very few cases of disease of the posterior lobe having caused paralysis of the face on the side where it exists are on record, and this is the more remarkable that disease in that lobe causes more frequently than lesions of the other lobes a direct paralysis of the limbs. Rostan[45] gives a case of paralysis of the limbs and face on the *left* side, with pultaceous softening of the whole *left* posterior lobe, and a slight softening of the middle part of the white substance of the right hemisphere.

In two cases of disease of the crus cerebri there was paralysis of the face on the side of the lesion. In one of the two given by Stiebel,[46] the paralysis was limited to the face and the upper eyelid; in the other, due to Frerichs,[47] the face, the arm, and the leg on the *right* side were attacked with convulsions and paralysis, caused by a tumour in the *right* crus cerebri. In another case which I have already quoted, Dr. J. W. Ogle found only facial paralysis from disease of the crus cerebri; but the side paralysed was the opposite, instead of being, as in the cases of Stiebel and Frerichs, the same as that of the lesion.

I will next discuss the significance of these cases of paralysis of the face occurring on the side of the lesion.

[24] Bulletins de la Société Anatomique, 1873, p. 346.
[25] Gazette des Hôpitaux, 1867, p. 229.
[26] Thèse de la Faculté de Paris, 1875, analysed in Revue des Sciences Médicales, vol. vii., 1876, p. 703.
[27] Bulletins de la Société Anatomique, 1874, p. 29.
[28] Bulletins, just quoted, 1869, p. 231.
[29] Bulletins, just quoted, 1845, p. 18.
[30] Quoted by Gintrac, loc. cit., vol. ix., pp. 344 and 445.
[31] Quoted by Prus, Mémoires de l'Académie de Médecine de Paris, vol. xi., p. 65.
[32] Loc. cit., vol. i., p. 312.
[33] Bulletin Clinique (Paris, 1835), vol. i., p. 114.
[34] Quoted by Gintrac, loc. cit., vol. viii., p. 256.
[35] Guy's Hospital Reports, Third Series, vol. iii., 1857, p. 294.
[36] THE LANCET, vol. ii. 1867, p. 134.
[37] Echo Médical (Neuchâtel, 25 Août, 1861), p. 404.
[38] Médecine éclairée par l'Ouverture des Corps, 1804, vol. i., p. 100.
[39] Gazette Médicale de Paris, 1835, p. 555. In this case the alteration existed also in some convolutions on the same side.
[40] Journal de Médecine de Bordeaux, 1841, vol. xiv., p. 85, quoted by Gintrac, loc. cit., vol. vii., p. 94.
[41] Loc. cit., p. 170.
[42] Traité des Phlegmasies Chroniques, vol. ii., p. 411.
[43] THE LANCET, vol. i. 1875, p. 119.
[44] Bulletins de la Société Anatomique, 1836, vol. xi., p. 76.
[45] Loc. cit., p. 31.
[46] Quoted by Gintrac, loc. cit., vol. vii., p. 337.
[47] Quoted by Ladame, loc. cit., p. 139.

BEQUESTS &C. TO MEDICAL CHARITIES.—MESSRS. Coutts & Co. have given five hundred guineas to the Charing-cross Hospital. "A. M. G." has given £500 to the Samaritan Fund of the Hospital for Sick Children, Great Ormond-street. The Norfolk and Norwich Hospital has received £400, and the Norfolk and Norwich Eye Infirmary £200, under the will of Mr. George Gedge. Mrs. Elizabeth Coventry, of Brighton, bequeathed £200 each to the Middlesex, the Cancer, and the National Hospital for the Paralysed and the Epileptic, and £100 to St. Mary's Hospital.

ON "ORIENTAL SORE" (DELHI BOIL).

BEING AN ANALYSIS OF A SPECIAL REPORT BY DRS. LEWIS AND CUNNINGHAM, WITH COMMENTS THEREON.

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THE results of the special investigation into the nature and pathology of Delhi boil, recently ordered by the Government of India to be undertaken by Drs. Lewis and Cunningham, have been looked for with some interest, and they are now made public to the profession in a special report which reached me a few hours since, and which forms the subject of the following observations.

The report is an important one, as it contains many reliable data for the settlement of several vexed questions concerning the nature and cause of the disease, and I propose to give an abstract of the report in the first instance, and then to make a few comments upon the more important conclusions at which the authors have arrived.

Abstract.

1. The reporters first draw attention to the acknowledged identity of the Delhi sore with many other affections bearing different local names in different countries, and they say that, "assuming that the cutaneous affection which we have studied at Delhi is practically of the same nature as the sore which is prevalent in Mooltan, Lucknow, Lahore, Scinde, and other parts of India, as also the chronic sore known in Aleppo, Biskra, Bagdad, &c., as *bouton*, it comes under the general designation suggested by Dr. Tilbury Fox of 'Oriental sore,'" and they adopt this term in their report as the generic one for these sores, which is a great simplification in nomenclature.

2. In attempting to ascertain the actual and relative prevalence of "Oriental sore" in different parts of India, Drs. Lewis and Cunningham have taken the admissions to hospital from "abscess and ulcer" as indicative of the extent of the prevalence and the mode of the distribution of the sore. Of course serious objection may be urged against this method of estimating the amount of actual "Oriental sore" in existence.

3. A large mass of statistical information, which must have cost much labour in its preparation, is adduced to show—First, that there is no necessary correspondence between the average total admission rate at any station and the prevalence of "abscess and ulcer" in it, though this is generally the case; secondly, that whereas of late years the statistical returns indicate considerable diminution in the number of hospital admissions amongst European troops from "abscess and ulcer," and amongst native troops also, in such stations as are garrisoned by the two classes of soldiers, there is no such manifest decrease at the stations occupied solely by sepoys (this discrepancy is supposed to be due to more attention having been paid to the sanitary requirements of those stations at which European troops are located); thirdly, that at Delhi the inference drawn in regard to this discrepancy does not seem always to hold good, "nevertheless it appears to do so at those seasons when the European and native soldiers are placed under equally advantageous conditions as to water. In those years when sores were notoriously prevalent amongst both European and native troops stationed in Delhi, their water-supply was derived from wells. Latterly the European troops in the fort have been supplied with water from the Jumna, whereas the native troops still resort to the wells, &c." Drs. Lewis and Cunningham believe, as regards the cause of the disease, that it is to be found in the character of the water, and that the quantity of salts in it, and its extreme hardness, have most to do with the matter, and they are of opinion that in places generally where "Oriental sore" is prevalent, the water is of a like nature to that at Delhi. Organic impurities have no influence. These gentlemen, therefore, affirm that "Oriental sore" is not the direct consequence of general unhealthiness, malarial poisoning, or the like, but that its development is determined by bad water of a particular character; and they remark, "that although the salts which cause the hardness of water may of themselves not be the actually deleterious ingredients, nevertheless this quality may serve as an index of properties in it, which tend to favour the production of cutaneous diseases."

4. The clinical features of the sore are dealt with in the report, but no novel point is made out.

5. In reference to the pathology of the sore the report is clear and full. Drs. Lewis and Cunningham found in the secretion from the sore a few blood-corpuscles, and a large number of granular lymphoid cells, averaging from $\frac{1}{2500}$ (=·006 m.) to $\frac{1}{3500}$ (=·008 m.) of an inch in diameter," which were dissolved by solution of potash, but cleared by acetic acid; together with yellowish-white-like bodies, the size and form of millet-seeds, $\frac{1}{75}$" wide by $\frac{1}{150}$" in length, and which were altered hair-sacs. "No other objects presented themselves as existing on the surface of the sore, or embedded in the secretion which covered it." The lymphoid bodies are not peculiar to Delhi sore. On minute examination of an extirpated sore before ulceration, they found—"(1) erosion and tenuity of the cuticle along the uppermost layer of the sore, but a thickening of it on either side of the part, which thickening extends but a short distance beyond the area occupied by the diseased tissue; (2) deepening of the Malpighian layer and enlargement of the papillæ; (3) pink striæ, directed vertically towards the uppermost part of the preparation, manifestly congested vessels proceeding towards the papillæ; (4) a line of glistening, decussating fibres of connective tissue, of a slight bluish tint, running parallel with the base of the sore, and about mid-distant between the surface and the base; (5) the even line of the base of the preparation showing no organic connexion with the subjacent structure; and (6) in some places along the base slightly mammillate elevations projecting a little beyond the level of the base of the growth, directed towards the normal tissue below the sore." Besides this, and especially in the more fully developed disease, is a corpuscular element consisting of lymphoid cells, which occupy every available space in the papillæ, invade the corium, and destroy the normal textures, especially the hair-follicles and glands. The hair-follicles are destroyed by the new growth, and pushed forward by it frequently until they are found as the little pearly bodies lying free on the surface of the sore. The sebaceous follicles are likewise invaded, and often cannot be identified as such. The sweat-glands are only affected in severe cases. "It is in connexion with the vascular structures of the corium that the essential features of the disease are most prominently observed. This, however, does not imply that the primary deposit (cell-growth) takes place in the interior of the vessels, or even in the interior of the capillaries. ..... The coats of the vessels are, however, generally thickened, and generally somewhat more readily resolved into their cellular elements than is the case in normal tissues. In endeavouring to trace a connexion between the lymphoid cells and the various tissues of the corium, all preparations demonstrate more or less clearly that the distribution of these elements is more intimately connected with the delicate fibrous tissue investment of the glandular and vascular structures than with any other tissue. In following the course of a bloodvessel, for example, colonies of lymphoid cells have formed in numerous places, and from these colonies ragged processes of delicate fibrous tissue may be recognised, which become joined to similar processes in other parts of the preparation. In other instances these delicate fibrous shreds may be seen to be directly continuous with the adventitia of a vessel, and to become more and more distinctly dotted with lymphoid cells until they are lost in a sheet, so to speak, of similar fibrous tissue at a distant part. Similar accumulations of the granular corpuscles may also be found surrounding the bloodvessels when the latter are cut transversely, as also surrounding the convolutions of the sweat-glands in connexion probably with the adventitia of their vascular tissues." These lymphoid masses seem to be in closer relation to the lymphatics than the bloodvessels, but there are others *apparently* located independently of all vessels. These cells are also seen in the fatty textures. In regard to the characters of the lymphoid tissue itself, the cells are imbedded in a cement substance; they can be, as in ordinary adenoid tissue, brushed out of the meshes of the substance; they "are frequently observed to be arranged linearly, four or five corpuscles being placed in a row with frequently a delicate string of fibrous tissue on

either side." They also vary from "mere irregular lumps of plasma to well-formed lymphoid cells" in intimate relation oftentimes to "spindle-shaped or epidermoid cells in various grades of transition." No parasitic element is mentioned as having been found.

6. Regarding the probable nature of the Oriental sore, and its relation to recognised skin affections in Europe, Drs. Lewis and Cunningham make a very remarkable statement. They affirm that neither scrofula nor syphilis will account for the disease, but that it is analogous to or a phase of lupus. Delhi boil is "in no way distinguishable from one or other of the various forms of lupus; its clinical history is similar, as also its morbid anatomy, and the treatment which has proved the most satisfactory is that which is generally recommended for lupus." But they add "that it may be somewhat modified from its European prototype, as suggested by the fact of its prevalence being limited to particular districts—a feature which, so far as we are aware, does not characterise it in Europe in any special manner." They finally suggest the term *Lupus endemicus* for the Delhi phase of Oriental sore. No results were obtained by inoculation, it should be mentioned.

Comments.

Such is a fair summary of Drs. Lewis and Cunningham's valuable report. I pass over many subordinate points of interest, to deal at once and but briefly with the clinical features, the cause, and the pathology of the disease, and the inferences drawn by the reporters from the facts before them.

As regards the cause, the direct influence of improved sanitary conditions, including that of water-supply, has been emphatically impressed upon the authorities of India over and over again, especially in Dr. Murray's well-known report and in a memorandum of the Army Sanitary Commission in 1874. But Drs. Cunningham and Lewis redirect and enforce more decided attention to the influence of bad water of a particular character as being immediately concerned in causing Delhi sore.

These gentlemen give the *coup de grâce* to two recent theories relative to the nature and cause of Oriental sore; the one that the disease is parasitic, and the other that it is syphilitic in nature. Neither in their clinical observations nor in their elaborate pathological researches have they discovered a jot of evidence in favour of either of the twain, and it may be especially noticed that in all their investigations not a trace of a vegetable fungus was discovered by the microscope in the diseased textures. My own limited observations are in accord with those of the reporters.

I do not think I do Drs. Lewis and Cunningham any injustice in stating that their pathological revelations are novel chiefly in the direction of preciseness. The changes in the skin textures proper and the hair-sacs and sebaceous follicles which they noticed, and the character and distribution of the new cell growth, have been generally made out and recognised, especially by Dr. Fleming, to whom great credit is due in the matter, and by Vandyke Carter; and I think that Drs. Lewis and Cunningham have scarcely done justice to these gentlemen, and particularly the former, because, as the report under notice stands at present, it would seem, unintentionally, no doubt, to imply that to the reporters themselves belongs the credit of having for the first time recognised the peculiar lymphoid growth so characteristic of Oriental sore and its particular distribution. If the reader will refer to Dr. Fleming's paper, or that by Dr. V. Carter in the Report on Endemic Skin Diseases of India by Dr. Farquhar and myself, he will find proof of the truth of my main statement, and will also notice that the special cell growth figured in the latter is described as having the characters of adenoid tissue, and as distributed about the vessels. At the same time, Drs. Lewis and Cunningham have given a much more complete and elaborate description of the minute appearance, which was much needed in correction or confirmation of previous work.

But I chiefly wish to comment upon the inference drawn by Drs. Lewis and Cunningham from their consideration of the clinical and minute appearances of Oriental sore, that the disease is lupus. I take a wholly different view. Their reasons for recognising the sore as lupoid are—firstly, a similarity, as they assert, in the clinical features; and, secondly, the fact that the pathological changes which they have found in the corium and rete mucosum "correspond very accurately with what Virchow has described as characteristic of lupus in his classical work on 'Diseased Tumours.'" Now, taking their own description of the naked-eye features and course of the sore, it is easy to show that lupus and it are different; and only in the slow and chronic course is there any analogy, and even here it fails. The sore, we are told, commences "as a pinkish papule, not unlike a musquito-bite." In the typical sore we have "a hard adherent scab, beneath which a red, raw surface is formed, which may or may not bleed readily on irritation, but is seldom painful." This is scarcely like the origin of lupus, with its usually gelatinous-looking unabraded, infiltrated aspect. "It (Oriental sore) is not particularly localised to any particular region of the body, several parts of which may be affected at the same time—the forehead, the cheeks, the wrist, back of the hands and feet, the points of the elbows and the knees, and not unfrequently the side of the nose, &c." This, I take it, is unlike lupus, which does not, except rarely, crop up at once, and that acutely, in several different parts of the body, whilst it tends to be, and indeed usually is, localised to certain regions. The "wheal-like belt of indurated tissue observed to encircle the sore," &c., is quite unlike lupus, and so is the "bulging forward of the sore noticed after poulticing, and which does so as more or less to resemble a boil or even a carbuncle." The fact that "from puberty to thirty" is the time during which most Delhi sores were observed by the reporters is, if it be meant that the disease began during this mean period, an argument against the identity affirmed. I will only add, on this point, that the proved inoculability of the disease; the influence of insanitary conditions, such as those of place and water, as causative agencies; the epidemic character of the disease, as many as from 50 to 70 per cent. of the troops being attacked at particular times, with no corresponding increase or diminution amongst the ordinary population; its localisation to certain places; the disappearance of the disease on removal of troops from cities to cantonments outside; the proclivity of newcomers to be attacked; the fitful character of outbreaks amongst bodies of troops; its disappearance for years or parts of a year, &c.,—are entirely opposed to the theory which would make Oriental sore a phase of lupus. Turning now to the morbid anatomy side of the question, it is impossible to prove the identity of lupus and Oriental sore on this ground. The changes not only in lupus and Oriental sore, but also in scrofulous ulceration and syphilitic disease are often very similar in general features. More than this, the analogies between these and those in rodent ulcer and pachydermia (elephant-leg), as regards the more minute physical appearances, are close. I have in my possession sections of elephant-leg in which the general minute appearances are in many respects similar to those of Oriental sore. So that morbid appearance offers no reliable diagnostic ground. What surprises me is the fact that, after admitting that "similar changes, though possibly differing in degree, are known to occur in other cutaneous affections (i.e., besides lupus and Oriental sore), Drs. Lewis and Cunningham should have added, "still in the aggregate they are sufficiently characteristic, more especially when in addition the clinical features are considered and compared," and that they have affirmed "that there can be little doubt the diseases may be looked upon as essentially the same." Drs. Lewis and Cunningham seem to have been influenced by a statement of Dr. Geber's that at Aleppo he found many of the cases of so-called "bouton" nothing but lupus. I do not deny this fact of course, but because the common folk mix up many dissimilar things under the popular term *bouton* at Aleppo, this is not an argument that no such special and distinct disease as Oriental sore exists. And it seems to me that, conscious in some undefined sense that there is really some flaw in their conclusion as to the nature of Delhi sore, and that there are some points of distinction between lupus and Oriental sore which they have not appreciated, they assume the probability that, "owing to climatic and other differences, the disease (lupus) may be modified in some degree from its European prototype," so that in fact it is changed to Delhi sore. But this is only an assumption, and is not, so far as I know, consonant with fact. The argument, that because the same kind of treatment cures lupus and Oriental sore, therefore they are identical, is not of any value, because the like treatment is

efficient in many other dissimilar diseases, such as syphilis, scrofuloderma, even rodent ulcer, chronic hypertrophy of the skin, &c.

But however much I may differ upon this particular point from Drs. Lewis and Cunningham, I am sure that their report has appeared most opportunely, and that it enables the dermatologist to pronounce a definite and satisfactory opinion as to the nature of the Oriental sore; and this is no mean compliment to the authors of the report.

An analysis of all the facts which have been ascertained up to the present time relative to Oriental sore, shows to my mind conclusively that Oriental sore is not a parasitic nor a lupoid disease, but one *sui generis*. It is a malady having furunculoid or cachectic affinities, and in consequence of its occurrence in connexion with a depraved state of health, the result of the action upon the system of climatic insanitary agencies, it runs a chronic indolent course. It is probably *immediately* excited by a bad water-supply possessed of special characters, indicated by the presence of a large amount of salts and extreme hardness rather than organic matter, at least according to Drs. Lewis and Cunningham's observations. Oriental sore, moreover, is liable to be confounded with lupus and syphiloderma.

Such, in brief terms, is my view of the matter, and it is founded in part upon my own experience of one or two cases that have come under my notice, and which were neither lupoid nor syphilitic.

Harley-street, W.

REMARKS ON SOME

CASES OF DISEASE OF THE TESTICLE FOR WHICH CASTRATION WAS PERFORMED.

BY WALTER RIVINGTON, M.S. LOND., F.R.C.S. ENG.,
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THE five following cases of disease of the testicle present features of interest. The first two are examples of fungus testis, one benign and the other malignant. The benign fungus was probably of a syphilitic character. As will be seen from the history, it was treated successfully at first by bringing the adjacent skin of the scrotum over it, but as it recurred at the end of three months, the testicle was removed. The malignant fungus was interesting because it occurred in a patient suffering from syphilis, and this association naturally raises the question whether the conjunction of the two diseases was adventitious, or whether the outbreak of syphilis either paved the way for the cancer or was an essential preliminary to its development. Holding to the views which I have elsewhere expressed in a condensed form, that cancer (whatever may be its histology) is a disease which bears a special relation to the lymphatic system, and conceiving it to be well established that syphilis enters the human body through the lymphatic system, and generally (because the primary sore is ordinarily found on the external genitals) through the chain of inguinal, iliac, and lumbar glands, I should be quite prepared to meet with instances of cancer which had arisen in parts already altered by syphilis. It would be out of place here to enter into an amplification of my theory or hypothesis of the origin of cancer. This I hope to do in an exhaustive manner at some future time; and without the amplification I could not explain more fully the probable connexion between the two affections. It must suffice to suggest that the relation between cancer and syphilis, or the preliminary question whether they have any common features or relationship, would form no unprofitable subject for reflection and discussion. I will now give the history of the cases of the fungus testis, merely adding that benign fungus of the testis probably results more frequently from syphilis than from any other affection, and that as malignant fungus is extremely rare, the protrusion in my second case may have been favoured by the syphilitic infection.

CASE 1. *Benign fungus testis (small-celled sarcoma); castration; recovery.*—Charles S——, aged thirty-three, was admitted into the London Hospital under my care on Nov. 11th, 1873. He had an irregular sore at the lower part of the scrotum, much resembling a soft chancre; and an ulcer, about the size of a shilling, over the upper part of the left testicle. At the bottom of the ulcer a slough could be seen, and this was removed easily with a pair of forceps. The surface of the testicle (whether covered or not by tunica vaginalis could not be ascertained) was felt by the finger introduced into the cavity. Granulations sprang up and filled the ulcer, but the edges of the soft parts became bound down by adhesions, and no efforts were made by nature to close the opening.

On Jan. 6th, 1874, the patient being placed under chloroform, I pared the edges of the opening, and, having separated the soft parts to some extent round it, inserted some hare-lip pins and brought the edges together after shaving off the upper part of the protruding granulations. Although I could not obtain any syphilitic history, nor any external indication of the previous existence of the disease—with the exception of a suspicious-looking scar on the left side of the scrotum, of which the patient could render no account whatever,—I had previously given iodide of potassium experimentally, and I now ordered the bichloride of mercury. Under this treatment I obtained closure of the wound and removal of the sore of the scrotum, and the patient was discharged cured a few weeks afterwards.

He remained well for three months, and had returned to his work, when the protrusion again took place at the site of the operation.

He was readmitted on April 15th. The opening in the scrotum was decidedly larger than before, and from it protruded a convex mass of granulations continuous with the body of the testis. All attempts to repress the testicle and draw the soft parts over it proving ineffectual, and the growth increasing, I obtained the patient's consent to the removal of the organ. Mr. Curling saw the patient also, and concurred in the propriety of the operation, which was performed in the usual manner. The wound healed well without complication. The patient was discharged on June 8th.

On examining the testicle it was found that the tunica vaginalis and tunica albuginea were destroyed at the site of the protrusion, and that this latter consisted of new growth, covering the secreting structure of the testis. There was no deposit of any kind in the testis, which was scarcely larger than a normal organ. Mr. Needham injected the vessels and lymphatics, and made some microscopic sections for me. He reported as follows:—"The posterior third has a healthy appearance, the remainder that of being more or less diseased. Transverse sections show the secreting tubes more and more separated by new growth as the anterior surface is approached, until at last they (the tubes) are quite absent, and all the normal structure of the testis is lost. This change may be attributed to the pressure exerted by the new tissue. The tubuli seminiferi are consequently smaller than natural in many places. The contained epithelium, when not absent, is apparently healthy. The new growth, which besides occupying and enlarging the intertubular tracts, forms a large granulating mass on the anterior surface, consists of very small cells, variously shaped; the majority, however, are spindle-shaped. Many are distinctly nucleated; others again are so small that the differentiation of nucleus from cell-wall is impossible to be discerned. The long axis of the fusiform cells do not tend in any one direction. The fungous mass above referred to as growing from the anterior surface of the organ is composed principally of spheroidal cells, like those seen in ordinary granulation-tissue. The new tissue is very vascular. The vessels of the fungous mass are arranged in loops, the convexity of which is directed to the surface, as is usually seen in granulation-tissue. It appears therefore that the testis had become the seat of a small-celled sarcomatous growth."

CASE 2. *Malignant fungus testis in a syphilitic subject; castration; recovery.*—Edward S——, aged twenty-two, was admitted into the London Hospital on October 27th, 1873. Eleven weeks previously the patient had noticed that he had three chancres under his prepuce. He treated them by applying caustic and bluestone, and at the end of a week they were better. His left testicle then became inflamed. Leeches were applied to the scrotum, followed by poultices. An abscess of the testis being suspected by his medical attendant, incisions were made, and gave exit to blood and

matter. Fourteen days before admission the scrotum gave way and a large quantity of blood escaped.

On admission, the patient had a fetid fungous protrusion from the left side of the scrotum, about an inch in each diameter. The testicle could be felt behind the fungus. There was neither pain nor enlargement of the inguinal glands. As the patient admitted that he had had a chancre two years previously, which had been succeeded by bubo and secondaries, I thought it worth while to try the effect of iodide of potassium, although I did not expect that it would be of any avail. The fungus increased, and attained the size of an orange. Some brain-like, gelatinous substance could be squeezed out from the lower part. It was evidently malignant, and demanded removal. Accordingly, on the 16th of November, I had the patient placed under chloroform, and, having cut down and exposed the cord, I was able to shell out the whole mass readily with my fingers. The fascial investments of the cord having been divided, all the funicular structures were cut across, and the arteries—two in number—were twisted. The skin round the ulcerated opening was pared, and the edges of the wound brought together. It healed nearly throughout by primary union. In a few weeks the patient was able to leave the hospital. About a month afterwards he came to see me in the aural department of the hospital. He was suffering from deafness and discharge from the ears, caused by inflammation of the tympanic mucous membrane, leading to perforation of the membrana tympani. A well-marked eruption of syphilitic lichen covered his skin. As he was obliged to return to his home in the west of England, I lost sight of him. The disease of the testis, examined microscopically, was a well-marked instance of encephaloid cancer.

The next case was one of cystic disease of the epididymis, accompanied with or followed by increase of the fibrous tissue of the epididymis and spermatic cord. So far as I know, the condition of parts found in this case has not been described by systematic authors.

CASE 3. *Fibro-cystic disease of the epididymis of the right testicle and spermatic cord; castration; recovery*—A. D——, aged fifty-six, was admitted into the London Hospital on the 17th of January, 1876. Twelve months previously he noticed that his right testicle began to swell at the lower part. The swelling gradually extended upwards without pain, and had increased in size ever since. He had never had any injury to the organ, nor had the tumour been tapped. On admission a large swelling occupied the right side of the scrotum, soft, smooth, translucent; without impulse on coughing; yielding a fluctuating sensation; dull on percussion; long, cylindrical, not pyriform, and extending from the external inguinal ring to the bottom of the scrotum. The swelling projected below the testicle. On the inner side, near the penis, a hard lump could be felt. On the 19th the swelling was tapped, and 14 oz. of fluid drawn off, not the pure straw-coloured fluid usual in hydroceles, but stained with the colouring matter of the blood of a reddish-brown tint. The last portions of the fluid were darker in colour than the first. The testicle was found enlarged, and the cord thickened. Castration was recommended, and, the patient consenting, was performed on the 2nd of February in the usual manner. The patient went on well after the operation till the 26th, when he had an attack of shivering lasting an hour. High temperature (103°), full and bounding pulse. The next day he was sick two or three times. At this time the wound had nearly healed. These symptoms passed off, and the patient was discharged cured on the 18th of March. Section through the cord and testis showed that the cord was greatly thickened and hypertrophied. Immediately above the testis was a large elongated cyst, extending some distance up the cord. It was lined with fibrin, stained with the colouring matter of the blood. The epididymis did not clearly appear. Between and in front of the two halves of the divided testicle another cyst of the same character appeared, and this communicated with the other by a narrow channel. The tunica vaginalis was nearly obliterated. The secreting structure of the testis was of a florid red colour. Small cysts were scattered about in the dense tissue outside the testicle, as well as in the spermatic cord; they were not larger than hemp-seeds. Further dissection showed that the upper and larger cyst had been developed in the head of the epididymis, being of the parenchymatous variety, and had expanded the globus major over it. In the fibrous tissue were one or two round yellowish-white masses about the size of peas. Microscopic examination by Mr. Needham showed that these consisted of dense bands of fibrous tissue arranged in various directions in an orderly manner. Amongst these bands, outside the vessels of the part, were large numbers of white corpuscles, which probably had escaped by diapedesis. The walls of the large cysts were formed of the same condensed connective tissue, and were continuous with the solid fibrin deposited on their interior aspect.

In this case, most probably the largest cyst had originally been a small serous cyst, had grown to a considerable size, and, from some cause or other, had become inflamed. This would account for the great increase of the connective tissue of the part.

(To be concluded.)

ON CHRONIC GASTRIC ULCER.

BY JOHN RICHARD WARDELL, M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE TUNBRIDGE WELLS INFIRMARY.

IN a series of papers published in THE LANCET last year on this subject, I so fully entered into the many considerations which have to be taken into account when describing this very interesting affection, that I now merely relate a very typical example of the complaint.

On March 17th, 1876, Mr. Sydney Austin, of Lingfield, Surrey, came to confer with me under unfortunate domestic circumstances. He told me that about a year ago one of his maid-servants, who had been in the habit of taking the chloral hydrate, took too large a dose, and died; and that another maid-servant, who had been in his service only about three weeks, became suddenly ill, after taking some medicine given to her by his assistant, and sank in the course of a few hours. On more of the details as to symptoms and circumstances being related, I gave it as my opinion that the last-named fatal issue had been caused by rupture of the stomach and diffuse peritonitis. At Mr. Austin's request, I went to Lingfield three days afterwards, for the purpose of being present at the inspection. The following facts were reported relative to the deceased's history, and those conditions which marked her case before death. She was single, aged twenty-three, well nourished, and rather inclined to be fat. She had never during her life had any serious malady, but for many years she had complained of indigestion. Nine years previously she had to "keep her bed for bad digestion." Since that attack she had declared she had never been quite free from pains at the stomach. The lady with whom she had previously lived for eight years considered her delicate. For some time before her death she could not drink even cold water without producing epigastric uneasiness. Mr. Austin's advice being sought in September previously, he advised the relinquishment of her situation, as she looked thin and ill. She complied with this opinion, and remained at home five months, at the expiration of which time, "she had gained flesh, and looked quite well." On Feb. 24th, she entered the service of Mr. Austin, and up to "twenty-four hours of her death was in full work." She had, however, complained to her new fellow-servants that she "suffered pain after taking food." After she had taken her breakfast on March 17th the pains returned somewhat sharply at the epigastrium. She asked Dr. Miller (the assistant of Mr. Austin) if he would give her some medicine to relieve her suffering. This gentleman complied with the girl's request, and gave her a bismuth mixture. After taking the first dose, the pain became intensified, rather than mitigated. The suffering in the abdomen was subsequently continuous. She was put to bed, and abdominal symptoms of formidable character set in. Opiates and other remedies were given, and fomentations, poultices, and terebinthinate epithems were assiduously employed, but with little or only transient relief. She lay on her back, with the knees slightly elevated; and the pulse, temperature, tympanites, and facial appearance told but too truly the tale of acute peritonitis. There was, too, general tenderness on pressure, and the breathing became thoracic. At length the pulse became quicker and

declined in power, the respiration more hurried, and the extremities cool, and she gradually sank, the mind remaining clear to the close. Two deaths having occurred with such rapidity and within so short an interval of time in one establishment were, under the circumstances, exceedingly unfortunate, and Mr. Austin very naturally wished that a careful post-mortem examination should be made in the instance of this young woman.

The autopsy was performed by Dr. Miller about seventy hours after death. The body was plump and unattenuated, nor were there any indications of decomposition. On a free incision being carried down the mesial line from the ensiform cartilage to the pubis, a subcutaneous stratum of fat, from an inch and a half to two inches in thickness, interposed between the skin and the abdominal muscles. On opening the cavity of the abdomen, the conditions of recent and diffuse inflammation were abundantly presented. The vessels proper to the omentum were large and injected. The intestines were of pinkish hue, and at certain places the increased vascularity conferred the condition of patches of redness. On more minute inspection, deposits of recent and readily torn lymph soldered together the opposing coils of the bowels, but the effused coagulable material was altogether inconsiderable, nor were there discovered any of those floating semi-organised depositions which are so common and characteristic where the disease has been of several days' standing. At some points there was a besmearing of a sero-purulent product, but this was comparatively of small amount. There was also effused from two to three pints of a grumous, sero-sanguineous fluid, which was of a brownish, dirty-red, brickdust-like colour, but it was not mixed with coagula. The convex surface of the liver revealed the evidence of its serous covering having been inflamed. On the endeavour being made to take out the liver, and on raising the left lobe, a small quantity of purulent matter immediately escaped; and on a fuller inspection of the organ, a patch, of about the size of a shilling, denuded of the serous covering and exposing the dark parenchyma, was revealed. This round, brownish-red spot was encircled by a thickened ulcerative condition of the peritoneum, which seemed of old standing, as it was then rendered dense and opaque. On looking at the other viscera which still remained *in situ*, a round hole, nearly the size of a shilling, was noticed at the lesser curvature of the stomach and precisely where it would be in apposition with the localised hepatic lesion now described. The stomach was carefully removed. The circular opening, as seen on the peritoneal aspect, was not that clean-cut or punched outlet which is beheld when perforation eventuates without adhesions; but the entire edge was round and tumid or slightly elevated, as if a ring of organised product had been formed. The serous covering was not normally diaphanous in the immediate vicinity of the opening. On inspecting the ulcer internally it was seen to be funnel-formed or crater-shaped, and the unequal absorption of the inner coats had conferred the characteristic tumid elevations. Surrounding the circle the stomach-wall was considerably thickened for at least a couple of inches, and this abnormal augmentation of substance gradually became less proclaimed, without any line of demarcation, until the natural parietes were again seen. On placing the thickened part between the fingers it felt dense, but somewhat elastic, and by no means so hard and resistive as the feeling of scirrhus when it affects this organ. The gastric inner surface in other parts seemed healthy. Lastly may be mentioned another characteristic condition which is but rarely seen in chronic gastric ulcer. When the organ was spread out on the table the hour-glass contraction was exceedingly well marked. The constriction was immediately under the ulcer, and thus the organ was divided, as it were, into two almost equally capacious, sacculated, pouch-like cavities, which curiously altered the normal configuration of the stomach. There was not much puckering up, nor yet many radiating lines from the aperture; hence it was presumptive that this central narrowing had been a long process and very gradually supervened.

From the particulars narrated of this illustrative example of chronic ulcer of the stomach, there are certain facts of interest to which a brief reference may be made. From the young woman's previous statements, and from what could be gathered from others, it was exceedingly probable that structural disease of the gastric membrane had been existent for several years. For a long period she had never been absolutely free from uneasiness at the epigastrium, and this was increased on taking food; the ingesta would cause irritation by coming in contact with the part of lesion, and its continuance showed the difference between such causes and that which gives rise to mere functional neuralgic or spasmodic suffering. Notwithstanding that half a year before she had become somewhat emaciated, the rest and quiet, the medical treatment and carefully regulated diet, sufficed to restore her normal volume of flesh and to render her in apparently good health. It is of significance to remark that the evident and acuter symptoms of rupture came on immediately after a meal, and it is probable that the dose of medicine which she took to relieve her pain passed at once into the peritoneal cavity with some of the other extruded contents of the stomach. The morbid phenomena set up by the event of perforation were very typical of that violent and fatal form of peritonitis which comes on when the serous membrane is thus torn, when sudden irritation is instituted in the sac, or when the cause is of traumatic origin. From the grumous sanguino-serous fluid there had evidently been a good deal of blood effused, consequent on the laceration at the part of lesion; and it will be remembered that in these cases, as I have pointed out in the series of papers published in THE LANCET last year, very considerable and even fatal losses of blood will follow the division of an exceedingly small arterial branch. It is not unlikely, from the clinical history of this patient, as well as from the appearances revealed on dissection, that this ulcer had existed for a very long time—it may be that it had been formed even some years, because we have reason to believe that chronic ulcer of the stomach may go on very much longer than was once supposed, and more especially when the base of adhesion is formed by one of the solid visceral organs, and because the kind of hour-glass contraction which had eventuated must have been an exceedingly slow result. Again, the greatly-thickened parietes which surrounded the opening had manifestly been of long continuance. With a base so firm as the hepatic substance, there seems no reason why such an instance of adhesions might not become organised, and thus effect a permanent security against gastric rupture. And, indeed, we know that in certain instances which have been discovered where the patient has died from other causes, this mode of acoretion to a neighbouring organ may be protective from worse results, and, in fact, conservative of life.

Tunbridge Wells.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

CASE OF DOUBLE HYDATID TUMOUR OF THE LIVER RAPIDLY DESTROYED BY PARACENTESIS OF EACH CYST AND WITHDRAWAL OF ITS FLUID CONTENTS.

(Under the care of Dr. WADHAM.)

C. E——, aged thirty, a discharged soldier, was admitted on June 10th, 1876, on account of an abdominal tumour which had been gradually increasing for three years. In appearance he was wasted and anæmic, complained of great debility, and was suffering from breathlessness and constant palpitation of the heart.

On examination, he was found to have an enlargement in the right side bulging out the lower ribs, and extending downwards towards the iliac and laterally into the epigastric and umbilical regions. In the median line below the xiphoid cartilage there was a small area resonant on percussion, and then another tumour extending into the left side, causing dulness on percussion, nearly up to the clavicle, and downwards into the left hypochondrium. The heart appeared to be pushed backwards and upwards towards the clavicle, and the respiratory sounds were almost absent

anteriorly on that side. Where not confined by the ribs the tumours were somewhat globular in shape, smooth to the touch, and had a kind of doughy feel.

These tumours having been diagnosed to be hydatid cysts of the liver, a grooved exploring needle was plunged into the tumour in the right side, and brought away a drop of perfectly colourless limpid fluid. This was followed for a few days by such severe constitutional symptoms that the man was sent to the convalescent hospital with a view to improve his general health before submitting him to further treatment.

On July 20th he returned to the hospital very much improved in health, and on the 22nd sixty-eight ounces of fluid were drawn from the tumour in the right side, and on the 27th eighty ounces from that in the left. These operations were performed with a very small trocar and cannula (the latter being fitted with a stop-cock), and the fluid withdrawn by means of a double-action syringe. In the fluid abstracted two or three hooklets only were found. The operations were followed by no constitutional disturbance, and the man was again sent to the convalescent hospital on August 9th, where he remained until Sept. 27th. On his return to the hospital no tumour could be detected on the right side, but one had recently formed on the left, and was perfectly evident to the touch and sight. Almost suddenly and without any treatment this tumour began to diminish, and when the man left the hospital on Oct. 25th had entirely disappeared. Percussion over and respiration in the left lung was natural, and the heart's apex could be felt in its normal position. The man was subsequently admitted for an attack of typhoid fever, and remained under observation until the middle of January. He was also again examined in March, but no evidence could be found of any tumour. At this date he appeared to be in perfect health, and had been admitted into the police force.

Remarks.—In reference to this case, Dr. Wadham mentioned that the principal means suggested for the cure of these hydatid cysts were: 1. Simple acupuncture. 2. The electrolytic treatment (which consists in puncturing the cyst with two fine needles, attached, by means of metallic wires, to the negative pole of a galvanic battery, and applying, over the integument in their neighbourhood, a moistened sponge connected with the positive pole. 3. Paracentesis, and withdrawal of the fluid contents of the cysts by some form of aspirator. 4. Puncture, with a view of allowing the cyst to be subsequently destroyed by suppuration. Of these methods he considered the last, in whatever way performed, needlessly painful, always tedious, and open to many sources of danger. Acupuncture and electrolysis, even if they could be relied upon, had also both of them the disadvantage of leaving for a long time in suspense the success or failure of the operation; the gradual dispersion of the tumour when so treated often occupying many months. If the cures following these forms of operation were, as he believed, simply due to the gradual escape of the fluid contents of the cysts into the cavity of the peritoneum, he considered that in paracentesis and withdrawal of the fluid by some form of aspirator we had a safer and a far more expeditious mode of treatment. This latter was, therefore, the operation for which he had a decided preference. The instrument which he had used, instead of any form of aspirator, was the same that he had frequently employed in cases of paracentesis of the chest. It was simply a double-action glass syringe, which admitted of the fluid being gradually withdrawn from the cyst without the admission into it of any air. It had, in his opinion, the advantage of allowing the operator to regulate, in a manner not possible with an aspirator, the amount of force employed in withdrawing the fluid, and enabling him to judge, by the resistance experienced, when the operation should cease. Dr. Wadham also directed attention to another point which had been well marked in this case—namely, the refilling of the cyst after operation, and its subsequent dispersion without further treatment. This circumstance had been observed in other cases by Dr. Murchison, who has remarked that the fact of an hydatid tumour filling out again after one operation is no proof that a second will be required. Dr. Fagge and Mr. Durham had also reported this to have happened in some of the cases which they had cured by the electrolytic treatment, an account of which may be found in the fifty-fourth volume of the Medico-Chirurgical Transactions.

WEST LONDON HOSPITAL.

A CASE OF STONE IN THE BLADDER, ACCOMPANIED BY EXCESSIVE SUFFERING; ATTEMPTED SUICIDE OF THE PATIENT; LITHOTRITY; RAPID AND PERMANENT CURE.

(Under the care of Mr. TEEVAN.)

SAMUEL E——, seventeen years old, a mason, admitted at 11 A.M., Dec. 6th, 1876, stated that he had suffered for fourteen years from frequent and painful micturition, accompanied by prolapse of the rectum every time he urinated. Six weeks before admission his pains became so severe that he was forced to give up work, and two weeks before micturition began to be attended with so much suffering that he rolled about the bed with agony during and after the act, but he could only expel a few drops of urine each time. For a week before admission the water dribbled away night and day, the patient still experiencing intense desire to urinate every ten minutes or so. Whilst on the voyage to Milford the lad tried to throw himself overboard to be relieved of his sufferings, but was prevented by his father, who accompanied him. The boy was born in Ramsgate, his father and mother in Nottingham. There was no history of stone in the family.

When admitted the patient was in a pitiful condition. His clothes were saturated with urine; he was unable to remain in any position longer than a few minutes, and he kept rubbing his penis—which was largely developed—with both hands, to relieve the excessive pain from which he was suffering. About every ten minutes he was seized with an intense desire to make water, and the rectum was immediately protruded to the extent of about four inches, but notwithstanding all his efforts he could only pass a few drops of urine. In the intervals of the spasmodic attacks the water kept running away *guttatim*. The patient was a well-developed young man, but his face was pale, thin, and indicative of much suffering.

At 2 P.M., on the day of the lad's admission, Mr. Teevan percussed the bladder, but found it empty. Suspecting that the incontinence was due to the impaction of a stone in the neck of the bladder, he introduced a waxen bougie, which was arrested in its progress, when close to the bladder, by a calculus. By gentle pressure the stone was pushed back into the bladder. Mr. Teevan then quitted the hospital, hoping that the lad would be more comfortable, and that after a few days' rest he would be fit for operation. The patient, however, had only half an hour's respite from his suffering, for the stone came down again into the urethra, and caused him to experience all his former pains, and although Mr. Cumming, the house-surgeon, pushed it back again, it soon revisited its former haunt. During the night the boy tried to jump out of the window, but was prevented carrying out his design.

Dec. 7th.—10 P.M.: As the lad's sufferings were so great, Mr. Teevan determined to operate. The patient was put under the influence of ether by Mr. Alderton, and Mr. Teevan introduced a slender but strong scoop, which was arrested in its progress by the calculus. As gentle pressure failed to dislodge it he withdrew the instrument, and, with a waxen bougie, succeeded in pushing the stone to just within the bladder. The lithotrite was then repassed, and as soon as the blades were opened a small stone was seized. By moving the instrument first to one side and then to the other, the presence of a calculus in each situation was demonstrated. Having crushed the small stone, its companions, which were each as large as a hazel-nut, were broken up.

8th.—8 A.M.: Mr. Cumming found that the patient was much easier, and had passed a tolerably quiet night. Pulse 88; temperature 99·2°.—9 P.M.: Pulse 98; temperature 101·4°.

On Dec. 12th it was noted that a good deal of stone had come away during the previous two days. The temperature at night had been up to 104°, but there had been no rigor. Lithotrity was again performed, the patient being under the influence of ether. Much débris passed during the four succeeding days, and the patient's condition greatly improved. Lithotrity was repeated on Dec. 16th. On the 20th the patient was quite free from pain, and could hold his water for two hours. Mr. Teevan introduced a scoop, but could find only one small fragment, which he crushed. The patient got up on that day. On the 24th he said he

felt quite well. He danced an Irish jig, and did not experience the slightest inconvenience afterwards.

On Jan. 20th, 1877, he had left the hospital in all respects quite well. He could hold his water for three hours, and the urine was clear, acid, sp. gr. 1012. The calculi were composed of uric acid. On March 25th the patient remained quite well, and was following his occupation regularly.

Mr. Teevan remarked that the case showed what lithotrity could accomplish even in an apparently unfavourable instance. Many surgeons would have held that the excessive irritability of the parts contra-indicated lithotrity, but if performed with a delicate scoop such objection was untenable. By no other means than lithotrity could the patient have been cured of his torturing malady in the short space of a fortnight. He had done far more at the first sitting than he usually did, but the lad's acute sufferings demanded speedy relief, and as at his period of life all the organs might be assumed to be healthy, he regarded whatever irritation might result from the operation as purely local, and as certain to subside so soon as the foreign body was expelled. The case also illustrated an observation of Civiale's to the effect that if a calculus of irregular shape be impacted in the neck of the bladder, incontinence and not retention is the result, for the stone prevented the sphincter vesicæ from closing behind the calculus, and the urine dribbled away along the sinuosities which existed between the stone and the mucous membrane of the canal.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

CASE OF REMARKABLY INFREQUENT PULSE; SYNCOPAL CONVULSIONS; DEATH; NECROPSY.

(Under the care of Dr. J. B. BRADBURY.)

THE following notes should be read in connexion with Dr. Handfield Jones's lecture on "Slow Pulse and Epileptoid Attacks," in THE LANCET for Dec. 30th.

John C——, aged seventy, pipe-maker, living in Cambridge, was admitted Dec. 6th, 1876. His father died young, of consumption; his mother, at fifty, of dropsy. He was an only son. Was a soldier in Ceylon for four years, where he had dysentery and rheumatic fever. Had been discharged from the army fifty years, during which time he had frequently suffered from rheumatism and cough. For five years he had had hydrocele of the left testicle, and three weeks before admission he noticed that he had slight cough and shortness of breath, which partly disabled him from work. The cough prevented him from sleeping.

On admission, he complained of shortness of breathing, frequent micturition, very bad appetite, cough, &c. His breathing was so short that he was obliged to remain still in bed. Temperature 98·4°; pulse 44, very feeble; respiration 36; urine non-albuminous. There was very little thoracic breathing. The apices of both lungs were duller than normal, and the expiratory sounds somewhat prolonged. The heart's impulse could be felt an inch below the nipple, and a little to the right of the nipple-line; cardiac sounds very feeble; no bruit. Ordered a draught containing aromatic spirits of ammonia and spirits of chloroform, to be taken three times a day. Diet to consist of beef-tea and cup pudding; brandy in small doses frequently repeated.

Dec. 8th.—Pulse 30, not so feeble.

9th.—Pulse 26; respiration 28.

10th.—Pulse: Morning, 32; evening, 30. Complained of coldness of the feet.

11th.—Pulse: Morning, 32; evening, 28; respiration 28. Has had some severe coughing to-day, and shortness of breath. The sputum was frothy and small in amount, and the patient thought it came from his throat.

12th.—Pulse 32; breathing easier; passed a better night.

13th.—Pulse: Morning, 40, not quite regular, nor even; evening, 26, regular. Breath more than usually short. There was a peculiar expiratory effort at each respiration. Mixture to be taken every four hours.

14th.—Morning: Pulse 36; respiration feeble. The same expiratory effort noticed. Complained of soreness in epigastric and precordial regions. The apices of both lungs yielded coarse breathing, and both bases subcrepitant râles. Evening: Pulse 30. Patient had less discomfort. Ordered a draught containing ether and sal volatile, to be taken every four hours.

15th.—Morning: Pulse 34. Passed a bad night, with considerable cough and dyspnœa. Evening: Pulse 32.

16th.—Pulse: Morning and evening, 32.

17th.—Pulse 30.

18th.—Pulse: Morning 32; evening, 28.

19th.—Pulse: Morning, 34; evening, 34.

20th.—Pulse 36.

21st.—Pulse 30. Complained of pain in cardiac region; cough not worse.

22nd.—Pulse 32. He has been troubled with insomnia for the last few days.

23rd.—Pulse 36, weak and irregular. During the night the pulse was extremely weak, and brandy had to be administered freely. Evening: Pulse 32.

24th.—Pulse: Morning 36; evening 30.

25th.—Pulse 36.

26th.—Morning: Pulse 36; respiration 42. Evening: Pulse 36; respiration 48. Passed a very troublesome night. Had paroxysms of coughing, with great dyspnœa.

27th.—Pulse 32.

28th.—Pulse 36.

29th.—Morning: Pulse 36. Had again a very troublesome night. There was some anasarca. Evening: Pulse and respiration 48 per minute. Since 2 P.M. has had great difficulty of breathing and precordial pain. At 7.15 he threw up his arms suddenly, as if in pain. Respiration and pulse entirely ceased for about fifteen seconds. Face turned purple, and arms were again suddenly and convulsively thrown up, pulse and breathing returning gradually from that instant. After the attack, complained of great pain in the head.

30th.—He had a similar attack at 10.15 A.M., but it was not preceded by pain as yesterday. Pulse 44. Had another attack late in the day, followed by cephalic pain.

31st.—Severe attack this morning, lasting fully one minute. During that time no breathing was seen. For more than six minutes subsequent to the restoration of the breathing the radial pulse was imperceptible. Nitrite of amyl inhaled in a small dose did not restore the pulse; but the pulse returned after inhalation of sal volatile.

Jan. 2nd, 1877.—No more syncopal attacks. Slept two hours in the night. Pulse 27. Felt better through the day yesterday. Evening: Pulse 30. Breathing rapid and uneasy. Cough very troublesome.

3rd.—Much worse. Pulse, at 3 P.M., 48; at 8.30 P.M., 40. Patient was sinking gradually.

4th.—He died at 3 A.M.

Necropsy.—Right lung: Firm adhesions of pleura on right side more or less in its whole extent, also inflammatory thickening of same; great increase of pigment in lung, which weighed 19 oz. Left lung: Weight 15 oz.; pleural adhesions chiefly at upper lobe; visceral pleura was studded over with small whitish, hard, spherical nodules, varying in size from a pin's head to a hempseed, and which were connected with the pleura alone, not involving the lung in any degree; these nodules had coalesced at the apex of the lung, and formed white cartilaginous-looking patches. The lung was slightly collapsed and markedly pigmented. The kidneys were healthy. Spleen was small, weighing only 2 oz. Brain weighed 2 lb. 15 oz. There was atheromatous degeneration and some dilatation of the vessels at its base; the lateral ventricles contained more fluid than normal, and their veins were somewhat dilated; in other respects the brain and medulla oblongata seemed healthy. Heart: Weight 20 oz. The pericardium was almost universally firmly adherent to the heart. The heart was somewhat hypertrophied, and at the bases of the aortic valves were calcareous plates; the valves were, however, capable of closing completely. The orifice of the mitral formed a calcareous ring; the valve itself was competent. The muscular fibres of the heart showed, when examined under the microscope, evidence of well-marked fatty degeneration. The arch of the aorta was considerably dilated, especially its ascending portion, which had also undergone extensive atheromatous and calcareous degeneration; a large calcareous plate, about the size of a penny-piece, could be easily stripped off from its inner coat.

Remarks.—Dr. Bradbury said that he regretted that no sphygmographic tracings of the pulse were taken in this case, which he frequently remarked to the pupils during the patient's life was one of fatty degeneration of the

heart, as evidenced by the very slow pulse, and the peculiar syncopal attacks towards the end of the patient's life. The rhythmical irregularity in the breathing first described by Dr. Cheyne, and designated by Stokes "respiration of ascending and descending rhythm," was present in this case, and, as so well pointed out by Hayden in his workon "Diseases of the Heart and Aorta," p. 627, indicated "an atheromatous change, dilatation, and loss of elasticity in the aorta," as well as a fatty state of the heart. The case is interesting as showing the inefficacy of nitrite of amyl after an attack of apnœa to restore the pulse, a result which was brought about by inhaling sal volatile. The connexion of slow pulse with fatty heart is well explained by Hayden, at p. 144 of his work. He writes, "I believe infrequent pulsation of the heart, in the circumstances mentioned (fatty heart), is directly due to impaired nutritive assimilation or malnutrition of the tissues, especially of the nerve-mass constituting the respiratory centre—a change probably due to arterial degeneration of the parts affected. In such cases inhibition of the heart through the pneumogastric nerves, to the standard of impaired nutritive capacity of the tissues, would seem to follow, under the law of the organism by which functions mutually dependent exercise a reciprocally regulative influence." The case is instructive when read in connexion with those lately recorded by Dr. Handfield Jones, and the one recorded by Mr. Pugin Thornton in the eighth volume of the Clinical Society's Transactions, p. 95.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THIS Society met on the 27th ult., the President, Dr. Charles West, occupying the chair. Dermatology—which has been frequently to the front this session—formed the chief part of the evening's work; and prolonged discussions arose out of a paper by Mr. Gaskoin on Morphœa Alba—for which the author desires to revive the old name "Leuce;" and on a rare form of Lupus shown by Mr. Hutchinson. There was also read an interesting case of removal of a flexible tracheotomy tube from the right bronchus by Mr. Howse. The tube had become rotten, and had broken off short on the patient attempting to withdraw it. Some valuable remarks followed the reading of the paper, and some improvements in the construction of the tube were indicated by which the occurrence of such an accident as that described could be obviated. As to the value of the tubes from a surgical point of view, there was no difference of opinion.

A paper was read on Morphœa Alba, or Leuce, with cases, by Mr. GEORGE GASKOIN. This paper refers to the threefold division of leuce as recorded by Dr. Hensler—i. e., into morphœa alba, leuce, and tyria. It is declared to be superfluous. The same morbid process reigns in all, and they are all three distinguished by a red areola. The morphœa alba has never been considered otherwise than as a surface lesion, and the idea thus entertained of it is accounted for, perhaps, by a vice of origin, the term being first introduced in early translations from the Arabic, serving then as equivalent for "alphos," which we now account to be psoriasis. At the present day it has supplanted the leuce. The consequence of this has been that many important cases are disinherited of their name and position and are recorded as anomalous. Two such are gathered from the experience of Sir Benjamin Brodie, one superficial and the other deep. They were regarded by that eminent surgeon as cases of cutaneous gangrene, but in accordance with the classification of Alibert, they might be grouped with leuce tyria. Cases were laid before the Society which resolve many points in the natural history of leuce; among others, that curious exfoliation of the epidermis which has been likened to the shedding of a serpent's skin (*à tyro serpente*), showing that this may occur in the most chronic and superficial cases, being little more than an accident in the disease, and no true test of its severity. The position is controverted that leuce is to be distinguished from lepra and elephantiasis by "absence of roughness, erosion, and pruritus." It is proved that, agreeably to the definition of Swediaur, it may be attended by crusts, occasionally of ponderous character, but still with a notable difference from those of psoriasis. The cases were illustrated by drawings.—The PRESIDENT said that the reading of the paper suggested the inquiry as to what bearing the disease described had upon true leprosy, which was once endemic in this country, like the plague was, and yet disappeared like it almost suddenly. Was the affection the relics of that disease?—Sir JOSEPH FAYRER contended that leprosy and morphœa were totally distinct diseases, although the earlier stages of anæsthetic leprosy resembled morphœa, of which he had seen many cases in India. The confusion was pardonable, since in India morphœa was frequently thought to be a condition antecedent to leprosy.—Dr. TILBURY FOX said that all must agree that there was no connexion between morphœa and leprosy. The affinities of morphœa are with scleroderma, and there are many cases on record of patients suffering from scleroderma being attacked by morphœa. One such he had recorded last year in THE LANCET. He regretted that the author of the paper had revived the obsolete term "leuce," for this was applied by the ancient writers to a number of totally distinct affections, such as vitiligo, alphos, anæsthetic leprosy, leucoderma, whereas morphœa, as now understood, is a well-defined disease. The occurrence of atrophy of the skin was not infrequent in morphœa, especially when the face was affected; nor was sloughing very rare. He had had such a case in University College Hospital. The sloughing was due to general ill-health and to deeper changes taking place from the material deposited in the skin. Exfoliation he did not believe to be so common as Mr. Gaskoin asserted, but it is not an important character, since it is common to a large number of skin diseases. He suggested that the author might possibly have confused cases of anæsthetic leprosy and morphœa. It was very difficult to tell exactly the nature of a disease from drawings, but certainly the descriptions given of some of the cases would apply to anæsthetic leprosy, and he (Dr. T. Fox) had brought down to the Society a case of the latter disease presenting patches of dark discolouration resembling those described in the paper. The author also spoke of "bullæ" and of anæsthesia and numbness in morphœa. Dr. Fox would like to have further information as to the diagnostic points between the cases described and anæsthetic leprosy. In morphœa, where there is much pigment, there is or has been always present the characteristic deposit; and in the cases of M. nigra there is no anæsthesia, at the most only numbness; but in anæsthetic leprosy the skin is dry, shrivelled, and very anæsthetic.—Dr. J. HARLEY (the hon. secretary) read an extract from the paper in which the "bullæ" were mentioned; it was to the effect that in some patches, the epidermis became separated without, however, having fluid beneath it.—Dr. THIN confessed that he was at a loss to understand what was meant by morphœa until he heard Mr. Hutchinson, in one of his demonstrations last year, show that it was simply scleroderma, and he attributed the attempted division between the two affections (which Kaposi has now adopted, introducing a separate description of morphœa into Hebra's treatise) to the desire of dermatologists to create distinctions where no pathological differences existed. In one of the New York medical societies some years ago, one dermatologist described a case as morphœa, and another following regarded it as scleroderma.—Mr. HUTCHINSON said that he agreed with what had fallen from Dr. FOX, but he held it to be impossible to diagnose the nature of a skin affection from descriptions and drawings, however accurate and faithful. It was most desirable that the patients themselves should be shown, and it might be worth while to adjourn the discussion in order to allow Mr. Gaskoin to produce his patients. If such a course were agreeable to Mr. Gaskoin and to the Society, he himself would be glad to bring as many cases of scleroderma or morphœa as he could get, showing different stages of the disease. He agreed with Dr. Thin as to the undesirability of abruptly separating scleroderma from morphœa. The confusion has arisen probably from the fact that morphœa

itself has several different stages. One of the drawings shown he could not have told from psoriasis. One feature of morphœa is that it is non-symmetrical. It is a neurosis, and its abruptly marked curious non-symmetry (e. g., one half of the face and side of the neck may be alone affected) is its most characteristic feature. Like herpes, too, it is susceptible of spontaneous cure. In that it differs from most other skin diseases. Not that the skin gets well, but the morphœa will go and only atrophy be left behind. The late Dr. Addison published the case of a woman, and casts representing the skin at that time are preserved in the museum of Guy's Hospital; but now, twenty years after, the patient is quite well, large patches having disappeared, leaving no scar. Leucoderma never gets well, and is invariably symmetrical. He joined in the regret expressed that the author should have re-introduced the discarded term "leuce." He did not believe that Celsus knew anything about morphœa, and he probably had leucoderma in view when he wrote his description, as in his reference to white hairs, which are met with in a leucodermic patch but never in scleriasis. He was surprised to hear Sir Joseph Fayrer say that morphœa was common in India. When he himself was in Norway, where leprosy abounds, he did not see a single case of morphœa in any of the hospitals; and Professor Danielssen told him that it was practically unknown in that country. There were other reasons for there being no connexion between the two diseases; for morphœa occurs without regard to the supposed causes of leprosy, does not occur in families, and is non-symmetrical in its characters.—Dr. EWART did not understand Sir Joseph Fayrer to say that morphœa was common in India, but that it was met with; and during his own service in the Bengal Presidency he had met with several cases. It had certainly no connexion with leprosy, and the fact of its non-symmetry was well recognised.—Dr. TILBURY FOX said that morphœa was sometimes symmetrical. He had recorded a case.—Mr. MORRANT BAKER said that he had recently met with a case of scleroderma that was symmetrical. If Mr. Hutchinson's proposition were acceded to, he could bring the patient; and also a case of circumscribed scleroderma and morphœa.—Mr. GASKOIN, in reply, said that the patients whose cases he described could not possibly be brought to the Society. No doubt leprosy existed in Rome in the days of Celsus, and he did not see it. He could not understand scleroderma without hardness, and held that there must be wider generalisations made of the leprous affections. He thought that there were still traces in this country of modified leprosy. By inventing the term morphœa the past is broken with.

A paper was then read on a case of Tracheotomy Tube (india-rubber) removed from the Right Bronchus, by Mr. H. G. HOWSE, M.S. The patient, a man aged forty-five, was admitted into Guy's Hospital on Christmas-day, 1876. He had been tracheotomised ten years previously for syphilitic disease of the larynx, and had ever since worn a tube, except at irregular intervals. Seven weeks before his last admission, after a longer period than usual without his tube, he had a return of dyspnœa, and had been admitted into the hospital again, when the aperture into the trachea had been enlarged, and one of the new flexible india-rubber tubes had been inserted. After having been taught the management of this tube he was discharged from the ward. On Christmas-day morning, while endeavouring to remove the tube from the trachea to clean it, it tore across, about one-third of an inch from the shield, and the part in the wound receded deeply into the trachea. Chloroform was given immediately after his admission, and the tube was felt occupying the right bronchus. After various unsuccessful attempts at its removal with loops of wire, the incision was enlarged, and the tube was finally seized and brought out with a long pair of curved forceps. A silver tube was first introduced into the wound; the next day this was changed to a vulcanite one, and shortly after the man left the hospital. Examination of the tube showed it to be quite rotten (seven weeks' wear), so that pieces of the rubber could be readily detached by the finger. A second tube, in a very similar condition to the first, after two weeks' wear, from a child at the Evelina Hospital for Sick Children, was also shown. These cases appeared to prove that it was not safe to entrust patients outside hospital beyond surveillance with a tube *composed of simple red rubber alone*. Since this accident an india-rubber tube had been made which would tend to obviate the risk of such accidents. It had a band of canvas running from the shield down either side of the tube. This rendered the tube *inextensile*, while it maintained its character of *flexibility*. The mere rottenness of the rubber did not suffice to explain the fracture in this case. The man stated that he had not changed it for two or three days, that when attempting to remove it he pulled at the shield, that the tube stuck, and he felt something give, that he pulled a little harder, and then the shield came away with a little of the tube adhering to it, the bulk receding into the trachea. This sticking of the tube was probably explained by the contraction of the cutaneous tissues on the neck of the tube, so that it had produced a slight annular constriction. As an illustration of this condition the first flexible tracheotomy tube, composed of black rubber, made use of at the Evelina Hospital for Sick Children, was amongst the specimens sent round. This showed flattening and apparent constriction of the neck of the tube. It had been worn by a child with congenitally syphilitic disease of the larynx for about a fortnight. On pulling at the shield in such a case, the part of the tube outside the skin would thus become *stretched*, the thickness of the walls would become *attenuated*, and hence there would be predisposition to fracture at this weakened portion. [Diagram shown, illustrating mode of fracture.] The new tube, being inextensile, from the canvas bands contained in its interior, would prevent the risk of such an accident. But even with this tube, when cracks were observed in the rubber, the patient should be cautioned to get a new tube, otherwise the tracheal mucus would penetrate to the canvas and slowly rot it. It was further to be recommended that glycerine should be used as a lubricating agent for these tubes instead of oil, which tended to rot even the best forms of rubber. Glycerine, on the other hand, appears to have very little action on rubber, or even if it has is so quickly washed away by the tracheal mucus on account of its solubility in water, that it exerts no harmful effect. It had been objected to the view of the sticking of the tube in the wound being due to the contraction of the cicatrix, that it was not possible for a cicatrix to contract in such a way as to have this power. The analogy of a bougie dilating a stricture would undoubtedly tend to support this view, but it was to be remembered that in the urethra there was an epithelial surface, whereas in the tracheal sinus we were dealing with simple cicatricial tissue. The case, too, was one of syphilis, where the tendency to vigorous contraction is universally recognised. Moreover the size of the tracheal sinus seemed disproportionately small to the size of the tube, so that it would have appeared not possible for such a tube to have passed through it. These facts appeared to prove definitely the power of a contracting cicatrix. No other theory accounted for the sticking of the tube.—Mr. MORRANT BAKER said that as he was responsible for the introduction of the india-rubber tube into practice, he would be the first to thank Mr. Howse for placing this case on record. India-rubber was a very treacherous material; it required very careful manufacture, and, during its use its condition should be carefully inquired into. Of course all tubes must come to a period when they will be worn out; and only that session Mr. Hulke had related a case in which a similar accident had happened with an ordinary metal tube. But this did not touch the surgical merits of the new form of tube; for although it might last only a few weeks, yet it did not produce ulceration and the other results of rigid tubes. Improvements in the manufacture of the tubes had been recently made, on the suggestion of Mr. Napier, so as to get rid of brittleness, and by the introduction of canvas between the layers of the rubber, to prevent contractility whilst retaining the elasticity of the tube.—Mr. DONALD NAPIER alluded to the prevailing ignorance as to the nature of the varieties of india-rubber; and maintained that, had a properly manufactured material (such as "No. 1, red") been used, the accident related by Mr. Howse could not have happened. The composition put into rubber to give it stiffness causes it to deteriorate; and great care also was necessary in the "curing" process, lest the material pass into the hard and brittle condition known as vulcanite. Rubber properly prepared can be made permanently elastic for two or three years. Warne's No. 1 red rubber is the best for surgical purposes. In conclusion, Mr. Napier criticised the explanation given by Mr. Howse as to the *modus operandi* of the

contraction of the tube in his case; it was impossible that the tube could be reduced in all its diameters as described; it would be rendered flattened or oval.—Mr. HOWARD MARSH said that it was lamentable that tubes should be badly made; but defects due to manufacture were not inherent to these tubes alone. Since Mr. Baker's paper was read, he had been enabled on two or three occasions to contrast the working of the silver and the flexible tubes, and he was more than ever convinced of the superiority of the latter form. Quite recently, a patient presented symptoms of commencing ulceration of the trachea—symptoms which entirely disappeared on the substitution of a rubber tube for the silver one. Nor was there any more difficulty in the management of the rubber tube; it could readily be replaced after cleansing; and the case he referred to had made marked progress. Mr. Marsh strongly deprecated any hasty conclusion being arrived at adverse to the new form of tube. In answer to the President, Mr. Marsh added that it was usual to substitute the rigid by the flexible tube on the fourth day; the latter form of tube, being less irritating, excited less secretion, and, therefore, called for less frequent cleansing. The reintroduction of the tube was easily accomplished, the wound gaping widely.—Mr. HOWSE, in reply, said that it had gone forth to the world that the red-rubber was quite safe. He was not at all opposed to the use of the tubes; he considered them to be a most valuable invention, but that it was hardly safe to entrust them to patients outside the hospital. He confirmed Mr. Marsh's statement as to the ease with which the flexible tube could be introduced, even in so short a time as forty-eight hours after tracheotomy. But he must defend the view that the simple india-rubber tube is not a safe tube, and surely this was borne out by Mr. Napier himself, in his statement of the extremely delicate processes necessary to secure the best and safest material. It appeared to him that one of the great advantages of the modified india-rubber tube, with canvas inside, over those first brought out, was that the former would not give way at once without warning, whereas the latter, being of the same material throughout, when they become rotten, tear through all at once. In reply to Mr. Napier's criticism of the mode of causation of the fracture of the tube in the case related, Mr. Howse said that the possibility of diminishing the calibre of an elastic tube was capable of perfectly easy demonstration, either by stretching it or by tying a string tightly round it. The latter mode would produce an annular constriction exactly analogous to that which he believed was produced by the cicatrix.

Mr. HUTCHINSON exhibited a lad suffering from a rare form of Lupus. He said the case was a most unusual one; he had never seen one exactly like it. The boy (about ten years old) was the youngest of a family of five children, and there was no syphilitic taint. The eruption began to appear during his first year, and was attributed by the parents to vaccination. It was not, however, developed in the vaccine scars. The eruption slowly extended, and presented now an appearance of separate circumscribed patches and spots on the face, forehead, cheeks, and ears, and on the left upper extremity. The patches had a definite conspicuous red margin, within which was a white scar; in some places the centre was red, and this appeared to be the earlier condition, for on its fading it leaves a single and definite cicatrix. On the hand was a sort of wart; and the nail of the affected thumb was diseased. The case fell under the head lupus, which was defined as a disease spreading at the margins and leaving a scar, and running a chronic course. He had never seen lupus on so microscopic a scale; with so little tendency to inflammation, and so slowly spreading, and he suggested the term "lupus *marginatus*," as descriptive of this variety. Mr. Hutchinson showed a drawing of a somewhat similar eruption in the vicinity of a vaccination mark; the eruption occurring five years after the patient had been the subject of vaccination-syphilis. In this case it might be said to be syphilitic, and if so, it would confirm his view of tertiary lesions being relapses of the primary manifestations, but it showed no tendency to ulcerate.—Dr. TILBURY FOX said that the case was clearly one of erythematous lupus; and he referred to the case figured in the twelfth part of his "Atlas of Skin Diseases," as closely resembling Mr. Hutchinson's case. The peculiarity of erythematous lupus was that it destroyed the skin superficially, and at the same time there was hypertrophy of the papillary layer. The well-defined margin was also characteristic of lupus erythematosus.—Dr. THIN said the interest of the case bore upon the cause of its peculiar appearance; and he suggested that this might be due to the young age of the patient, for lupus erythematosus was nearly always an affection of adult life. The disease began with abnormal capillary dilatation, followed by atrophy of the skin; and he thought the vivid and defined red margin of the patches in this case to be due to the readiness with which the margin of spreading capillaries could be seen in the child. At the same time he must protest against these cases being considered as a variety of lupus at all. There was no record of lupus erythematosus ever becoming true lupus, nor of the reverse. In Vienna and New York no such confusion was made. — Mr. HUTCHINSON would like to compare the case alluded to by Dr. Fox with his own; he did not think the latter to be a case of lupus erythematosus. He believed that lupus erythematosus was a form of lupus.

The Society then adjourned.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on the 3rd inst.; Dr. Wilson FOX, V.P., in the chair. Specimens were shown as usual, and at the conclusion of the proceedings the Chairman announced that, in addition to the ordinary business at the next meeting, Dr. Klein would exhibit specimens illustrative of the minute anatomy of scarlet fever, and also make a communication upon the nature of the typhoid of the pig.

Mr. GODLEE exhibited some microscopical preparations and drawings illustrative of Granulation Material in White Swelling of the Knee. The subject was a child four years and a half of age, who died from blood-poisoning following amputation of the thigh for acute white swelling of the knee. There was no constitutional taint, and at the post-mortem examination no tubercle was found elsewhere in the body. The articular cartilage was thick, and for the most part healthy, but becoming fibrillated in places. The synovial fringes were the seat of a quantity of flabby "granulation material," which under the microscope was found to be composed of cells and nuclei the size of leucocytes imbedded in a trabecular meshwork, with which so-called "giant-cells" were connected by processes. The appearances, in fact, were precisely those described in miliary tubercle of the lungs and other organs, and held to be characteristic of tubercle. But this case only bore out what had been stated before, that there was nothing specific in this structure; for there was no question of tubercle in the case at all. Similar changes had been noted by Friedlander in strumous joints. The case also disproved the assertion that in organs such as the lung and testicle, the "giant-cell" is the product of an altered air-vesicle or or gland-tubule. In reply to Dr. W. FOX, Mr. Godlee stated that the giant-cells measured about one two-hundredth of an inch in diameter.—The CHAIRMAN said the specimen was of interest as bearing upon the nature of strumous changes, which were some time ago supposed by Billroth to be nearly identical with tubercle. He inquired of Mr. Godlee what views he held as to the relation of special forms of chronic inflammation to the tubercular change. The "giant-cell" could not be considered characteristic of tubercle; but was the closely-packed reticular formation, with its tendency to necrosis or to fibroid change, marked by a special constitutional state or not? Although there was almost no change in pathology that could be absolutely called specific, yet there were large groups of cases with common peculiarities in their clinical history associated with certain anatomical characters not shared in by other groups of cases having different clinical features.—Mr. GODLEE, in reply, said that it was very seldom that an opportunity occurred of examining a strumous joint in its

early stages. He was unable to get any history of constitutional taint in the present case.

Dr. BURNEY YEO exhibited a specimen of Aneurism of the Superior Mesenteric Artery. The patient, a man fifty-two years of age, who had been several times treated for lumbago, and had suffered for some months from pain in the epigastrium, presented a pulsating tumour in that region, the size of a Tangerine orange. He was an engineer in the Peninsular and Oriental Company's service, and had been a rather free drinker; and twelve years before had contracted primary syphilis. He was at first refused admission; but on the 17th December, 1876, he came to the hospital suffering from headache and vomiting, and next day had an epileptiform attack, succeeded by others, passing into a comatose condition, in which he died. The urine was almost suppressed; what there was was highly albuminous. An aneurism was found involving the origin of the superior mesenteric artery; it was globular, two inches in diameter, and had completely compressed the orifices of both renal arteries, which appeared as long slits. The walls of the aorta were healthy; and the brain was healthy. Dr. Yeo referred to a case recorded by Dr. Wilks of superior mesenteric aneurism associated with endocarditis; and one by Dr. Ogle. Death in this case was evidently due to uræmia. — Dr. GOWERS inquired as to the condition of the kidneys and of the urine, for the effects produced were equivalent to ligature of both renal arteries. —Dr. MOXON asked whether the renal artery was occluded or not.—Dr. YEO said there was no obvious disease of the kidney, and that the renal arteries were compressed, not occluded.—Dr. MOXON thought that if the blood entered the renal arteries they could not be compressed, since the pressure in them would be the same as that in the aneurism. He also suggested that the albuminuria might have been due to the convulsions.—Dr. YEO said that death was undoubtedly due to uræmic coma; the quantity of urine secreted was very small.—Dr. SAVAGE said that in cases of general paralysis he had carefully examined the urine, and found that it was a rare thing for albumen to appear following a convulsion.—Dr. GOWERS confirmed this statement with regard to epilepsy. Dr. Sturge had made many observations, and found that albuminuria very rarely followed the convulsions of epilepsy, and that the quantity of albumen passed then was a mere trace.—The CHAIRMAN suggested either that the obstruction in the arterial stream tended to produce congestion of the venous system, and hence the convulsions and albuminuria; or that in cases of convulsion a urine of low specific gravity and containing but little albumen might have its quantity of albumen increased after a convulsion.

Dr. COUPLAND showed a specimen of Lymphadenoma, involving the stomach and many other organs. The patient was a young married woman, twenty-four years of age, who for five years had suffered from gastric symptoms, which were increased by hæmatemesis and wasting during the four months preceding her admission into the Middlesex Hospital under the care of Dr. Cayley, in September, 1876. She lived about three weeks after her admission, dying from exhaustion consequent upon vomiting; and during life tumours were found in the neck, epigastrium, and inner side of right thigh. There was found after death to be a large lymphadenomatous tumour of the retroperitoneal glands, and of the stomach and duodenum; similar growths in the anterior mediastinum, and extending upwards to the thyroid body, the right half of which was infiltrated; several nodules in the lungs, kidneys, and uniform infiltration of both ovaries. There was also a tumour the size of a pigeon's egg seated between the adductor muscles of the right thigh, two or three subcutaneous nodules in abdominal wall, and enlargement of the inguinal glands. The case was one of lymphadenoma, probably starting in the stomach or lumbar glands, and becoming generally disseminated, almost simultaneously, in the different regions.—Mr. SPENCER WATSON asked whether the thoracic duct was implicated in the abdominal mass, as that would account for the rapid emaciation.—Dr. GIBBON inquired whether the blood had been examined.—Dr. MOXON asked whether the infiltration of the walls of the stomach and duodenum had led to their contraction or dilatation; usually the latter condition resulted.—Dr. F. TAYLOR said that he had a specimen of lymphoma of the jejunum, which formed a large tumour in the abdomen, and which bore out Dr. Moxon's observations.—Dr. COUPLAND, in reply, said that the thoracic duct was probably implicated, for the aorta and vena cava were embedded in the mass, the former much narrowed, and the latter partially occluded by a thrombus. There was no note of the condition of the blood. The stomach at the seat of the disease was certainly dilated, and the duodenal wall was stretched over a tumour the size of a small orange, springing from the margin of the pylorus. It was this tumour that was felt during life.

Dr. COUPLAND showed also a specimen of Lymphoma of the Prostate, which was infiltrated with the new growth, and greatly enlarged, especially its left lateral lobe. There was no implication of the lymphatic glands, but secondary nodules occurred in the right suprarenal capsule and pancreas. The growth consisted of closely-packed small, round, and angular cells, which completely concealed the fine adenoid reticulum within which they were imbedded; but this was brought into view in pencilled sections. Dr. Coupland used the term lymphoma in a generic sense, and said that the absence of lymphatic glandular infection allied the disease to the sarcomata rather than to the true lymphadenomata. Only a few cases even of sarcoma of the prostate are on record. Socin gives some, and believes that many cases of so-called "encephaloid" disease of this organ in young subjects are really instances of sarcoma. But lympho-sarcoma is practically unknown to occur in the prostate. The patient from whom the specimen was taken was a policeman, twenty-nine years of age, who was under the care of Mr. Nunn, at the Middlesex Hospital, in September, 1876. His symptoms dated from an attack of cystitis three months before. The prostatic enlargement was detected, and Mr. Nunn thought that its gradual increase with aggravation of the symptoms was in favour of its malignant character as opposed to simple inflammatory enlargement. At the same time portions of calculus were found in the bladder. The patient died from cystitis and suppurative nephritis. At the suggestion of the Chairman the specimen was referred to the Morbid Growths Committee.

Dr. PEARSON IRVINE showed a specimen of Aneurism of the Coronary Artery, secondary to disease of the aortic valves. The patient, forty-five years of age, was admitted with symptoms simulating acute pneumonia, and had been at work to within a few hours of his admission. His respiration was 60 per minute; temperature 104°. There was slight dulness at the bases of both lungs; harsh breathing and moist râles. The cardiac impulse could scarcely be felt. Death occurred suddenly, shortly after admission. The pericardium was found to be distended with fourteen ounces of fluid blood and firm clot. The heart was hypertrophied, especially the left ventricle, which was also dilated; and the segments of the aortic valve were extremely disorganised, and covered by irregular vegetations, one of which, by its friction against the orifice of one of the coronary arteries, had led to ulceration and the formation of a small aneurism, the size of a pea, which had ruptured into the pericardial sac. Another vegetation was so placed as to have filled the orifice of the other coronary artery at each systole, and would have prevented the filling of that vessel by blood. Beyond the effects of friction from these vegetations, the lining membrane of the aorta was natural. Dr. Irvine inquired whether the rise in the temperature was due to the hæmorrhage into the pericardium. The lungs were not inflamed, but much congested; and the spleen, weighing twenty-two ounces, was the seat of numerous embolisms. Dr. Irvine also showed a somewhat analogous case of an aneurism rupturing into the pericardium; the clot in the latter formed a layer one inch in thickness.—The CHAIRMAN said that the relation of high temperature with intra-pericardial hæmorrhage was a question of great interest. In none of the cases of high temperature he had himself met with, nor in those recorded in literature (at any rate up to the year 1873) was hæmorrhage into the pericardium present. He suggested that the effect of shock was to produce either depression or elevation of temperature.—Mr. HOWSE suggested that the rise in temperature might be due to interference with the cardiac sympathetic ganglia, and might result from derangement of the nerve-centres similar to that produced in cases of fracture of the spine.—Dr. IRVINE said that he had no doubt that in this case the heightened temperature was due to the hæmorrhage, and therefore probably to shock; the man's illness only began in the morning of the day on which he was ad-

mitted.—The CHAIRMAN explained that he was referring to abnormally high temperature—as 106° or 107°.—Dr. CHURCH pointed out that the high temperature might have been due to the ulcerative endocarditis and splenic infarction.—Dr. IRVINE did not think so, for the man had no symptoms of his disease before the last few hours of his life.—Dr. DOUGLAS POWELL said that some of the endocarditis was evidently acute, and he suggested that the high temperature might have been due to minute embolism in the nerve-centres. Although the specimen showed the probability of the vegetations impinging against the orifices of the coronary arteries during systole, the general view was that the coronary circulation is carried on during the diastole.—Dr. YEO said that the good nutrition of the heart-wall showed that the coronary circulation could not have been interfered with, although at each systole the orifices of the arteries were closed.—Mr. MORRANT BAKER said there was no ground for the belief that the coronary circulation can only take place during diastole. In fact, jetting of blood from divided coronary arteries had been found to occur synchronously with the systole. The initial effect of the blood-stream, on entering the aorta, is, as Hunter pointed out, to distend the sinuses of Valsalva, and therefore to remove the valves from their proximity to the wall of the aorta.—Dr. IRVINE said that it was impossible to make a satisfactory examination of the brain. He thought the infrequency of the results of friction on the aortic wall was explained by the fact that vegetations on the aortic valves are generally on the outside of the cusps.

Mr. HOWSE showed a recent specimen of Intestine from a case of Exophthalmic Goitre, showing general intense catarrhal inflammation, with pigmentation of Peyer's patches. The patient, a female twenty-two years of age, had been in Guy's Hospital for some months, suffering from exophthalmic goitre, with increasing emaciation. Three weeks before death an abscess formed in the right axilla, and since then she had suffered from profuse diarrhœa. The temperature rose to 102° and 103°, and she sank exhausted. The whole of the intestinal mucous membrane was brightly injected, and Peyer's glands were pigmented apparently from capillary ecchymosis. They were not swollen, and there was no reason at all to suspect the condition to be due to typhoid fever, but the specimen resembled one shown last year by Dr. Fagge, which he considered was an early condition of the typhoid change, in a patient who had died from acute laryngeal ulceration. In the present case the spleen was firm and large, and there was bronchopneumonia. The brain, spinal cord, and sympathetic were natural to the naked eye. In reply to Dr. Yeo, Mr. Howse said that the patient had suffered from diarrhœa prior to the last attack, which lasted two or three weeks.—Dr. YEO said that diarrhœa was a prominent symptom in exophthalmic goitre, and the specimen shown was most interesting, as showing the pathological condition of the intestine in that disease.—The CHAIRMAN mentioned that diarrhœa was well marked in two out of three cases he had seen; in one it was very troublesome, and was nearly fatal, requiring two or three grains of opium daily to control it. But other catarrhal affections are not common in this disease; pulmonary are especially rare.

Dr. GOWERS showed a specimen of Atrophy of one Kidney with great Hypertrophy of the Heart. The patient was thirty-six years of age at the time of his death; he had suffered in early life from attacks of hæmaturia and from an attack of scarlet fever six months before, and general œdema had existed for three weeks. The urine was albuminous, and contained granular casts; and the case simulated primary cardiac disorder; the heart being manifestly much dilated and hypertrophied. At the post-mortem examination one kidney was found to be atrophied and to contain only collections of pus-like matter; there was no calculus to be found, and the ureter was almost impervious. The other kidney was much enlarged and fatty. The heart weighed twenty-three ounces, its left ventricle being much dilated and hypertrophied. Dr. Gowers pointed out that the interest of the case lay in the extreme enlargement of the heart, sequential to a primary renal disease. The degeneration in the hypertrophied kidney may have been due to imperfect nutrition of newly-formed tissue, or to the effect of the attack of scarlet fever. The great dilatation of the heart was to be ascribed to secondary degeneration of the hypertrophied walls.

Reviews and Notices of Books.

A Text-book of Physiology. By M. FOSTER, M.A., M.D., F.R.S., Prælector of Physiology and Fellow of Trinity College, Cambridge. London: Macmillan and Co. 1877.

IN this text-book we have the first English work on Physiology written by one who has devoted himself exclusively to this branch of science. Hitherto all the works in our language have been written by men engaged more or less completely in the practice of medicine, and who have consequently regarded physiology rather in its medical than in its scientific bearings. During the last thirty, we might almost say twenty years, an enormous amount of labour has been directed to the development of physiology as a science. The advances made in histology, and in the application of delicate physical apparatus to this branch of scientific inquiry, together with the development of chemistry, have all exerted a powerful influence in enlarging the domain of physiology, and in elucidating many points that were involved in hopeless obscurity to the last generation.

Dr. Foster has combined in this work the conflicting desiderata in all text-books—comprehensiveness, brevity, and clearness. The volume is of moderate compass, being indeed somewhat less than Hermann's treatise, whilst it is infinitely more agreeable reading. In saying this we do not wish to disparage Dr. Gamgee's translation of the latter work, which is indeed most conscientiously performed; but the fact remains that, as Dr. Johnson said (erroneously enough) of "Paradise Lost," the reader puts it down and forgets to take it up again. There is everywhere evidence that Dr. Foster has an opinion of his own, and that he has maturely weighed and comprehended the opinions of others. As he observes in his preface, "In physiology, as in other sciences, there is a zone of strife where truth and error mingle in conflict, and where the results of yesterday have power because they are new. But in physiology, no less than in the other sciences, this agonosphere is merely the envelope of a solid nucleus of acquired truth, which year by year grows larger at the expense of its more fluid and gaseous wrappings." We can say nothing more complimentary of Dr. Foster's treatise than that the student will here find the grains of wheat in much recent inquiry freed from the chaff with which they were originally mixed, and presented to him in the form of good, wholesome bread.

The relative space devoted to the several functions of the body is very fairly proportioned to their importance, with the exception of the chapter treating of Reproduction, which is practically excluded from consideration. Probably Dr. Foster, than whom no one is better qualified to give an intelligible account of it, has thought that a brief survey is of little value to the student, serving rather to confuse than to instruct him, whilst a detailed account of all the phenomena would have occupied too much space. The absence of this part is less to be regretted since Dr. Foster has published, in conjunction with Mr. Balfour, an excellent manual in which the development of the bird is fully discussed, and is about to issue a second part comprising the details of the process of development in mammals. He excuses himself, though we think unnecessarily, for having dismissed the subject of the Nervous System rather curtly. It appears to us that quite enough is given for a text-book, and it would have been difficult to give more without entering into details that are of little value to the student at the outset of his career. The subject of Histology is entirely omitted, which is again of advantage, since it diminishes the bulk of the volume, and is, or should be, familiar to the student before commencing the study of physiology *par excellence*.

We scarcely know what part to select as an example of the mode and style Dr. Foster adopts in discussing a subject, but perhaps we may with advantage take the chapter headed Vascular Mechanism. He commences this by describing the physical phenomena of the circulation as seen in the capillaries, the arteries, and the veins respectively. The mode of taking tracings of the blood-pressure and of estimating the rapidity of the flow of the blood are given, though, generally speaking, Dr. Foster avoids all experimental details, referring the reader to his own smaller work on Practical Physiology. The hydraulic principles of the circulation are next considered in a brief but intelligently written chapter, in which the three chief factors in the mechanics of the circulation are shown to be the force and frequency of the heart's beats, the peripheral resistance, and the elasticity of the arterial walls; the disturbances of these relations producing the various changes observed that may either be consonant with health or indicative of disease. It is further insisted on that the difference of pressure of the blood in the arteries and veins is due to the whole arterial system being overfull, whilst the veins are much less full. In regard to the rapidity with which an entire circuit of the circulation may be effected, it is estimated at thirty seconds. The movements and sounds of the heart are next considered, and the author points out that the muscular-contraction element admitted by many authors cannot be fairly held to aid in the production of the sound, since the contraction of the heart is "a comparatively slow, long-continued single spasm, and not a tetanic contraction." But a simple contraction or spasm cannot produce a musical sound. He therefore falls back on the valvular theory, though there are some difficulties even in the way of this, "Ludwig and Dogiel having heard the sound distinctly in a bloodless dog's heart, in which there was no fluid to render the valves tense and set them vibrating." An excellent section follows on the pulse. Numerous tracings are compared. Dr. Foster holds the dicrotic wave to be a wave of oscillation, augmented by the closure of the aortic valves, and hence regards it as of central origin. The predicrotic wave he considers to be a pure wave of oscillation. The vital phenomena of the circulation are next described, including the action of the nerves and the influence of variations in blood-pressure on the heart, together with the fullest and best account we have yet seen of the vaso-motor nerves; and the chapter terminates with a very condensed statement of the causes affecting the beat of the heart, and the peripheral resistance, which we regret is too long to transcribe. The sections on digestion and secretion, especially on the glycogenic function of the liver, and on the respiration and nutrition, are equally well worked up.

After a careful perusal of the entire work, we can confidently recommend it, both to the student and to the practitioner, as being one of the best text-books on physiology extant, the facts recorded being as reliable as the reasonings are sound, whilst the arrangement and style are alike excellent.

A Handbook of Therapeutics. By SYDNEY RINGER, M.D. Fifth Edition. London: H. K. Lewis. 1876.

THE appearance of a fifth edition of Dr. Ringer's Handbook of Therapeutics is a proof of the esteem in which it is held by the profession. We have several times called attention to its general characters, which remain but little changed in successive editions. The chief alteration has been the incorporation of a greater number of summaries of modern investigations into the physiological action of drugs. These are for the most part, however, unconnected with the treatment of disease; and the work remains essentially a manual of empirical therapeutics. The great feature is the treatment of symptoms, and especially of groups of symptoms.

In the present edition there are few alterations calling for special notice. The chapter on Counter-irritation contains some discussions on the pathology of the various conditions in which counter-irritants do good, including an account of the pathology of neuralgia, which includes a sketch of the theory of excessive nerve-action which lately appeared in our columns. A chapter has been added on Gelseminum sempervirens, from the silence of which on the subject of its therapeutic use we infer that its employment in disease has not yet furnished any results such as its remarkable physiological properties warrant us in anticipating. In the account of the action of belladonna some interesting observations have been added on its power of checking perspiration. It has been found to exert a very marked influence in lessening the sweating caused by hot-air baths; and the effect was as marked whether applied locally or given internally, but it was most marked when applied locally, and it would appear from some observations which are mentioned that it possesses considerable power to check the sweating of phthisis.

A model analytical index of diseases has been added, which is indeed almost an epitome of the therapeutical results described in the preceding pages. The index of medicines is printed in too small a type.

Du Darwinisme, ou l'Homme-Singe. Par le Dr. CONSTANTIN JAMES. Paris: Plon et Cie. 1877.

THE author of this attack on the modern doctrine of evolution commences with a misapprehension. Holding the theory of Darwin, he says we must believe that man is the descendant of the ape. Nothing can be more erroneous. No such statement, we are confident, can be found in Darwin's works, and it is no more true to say that he is descended from an ape than from a kangaroo; both being highly specialised types which yet retain some of the characters proper to the form from which they had an origin in common with man—one, however, separating off much earlier than the other. M. James claims to have special right to enter into the controversy in consequence of having worked with Magendie, and having edited his works. He appeals to facts, and divides his work into two parts—one scientific, and the other doctrinal. He commences by comparing the accounts of the origin of man given by Moses and by Ovid, and supports both by Cuvier. M. James takes infinite trouble to prove the truth of various passages in the book of Genesis, and his mode of proof may be gathered from the following instance. Discussing the age of the patriarchs, he fortifies himself in his belief with the statement made by Buffon to the effect that the duration of human life is seven times longer than the age of puberty, and as Adam's first son was begotten when Adam was 130 years of age, the 930 years he lived was no marvel. Throughout the work there is much light badinage directed against Darwin—sometimes clever, sometimes poor. One of the best observations is the following:—Quoting Darwin's remarks on the imperfection of the geological record, M. James imagines a conversation between Mr. Darwin and a friend. Mr. Darwin says, "It must be allowed that I am badly used. I place my whole confidence in a certain book, and it is given to me with many more than half the pages torn out." The Friend: "You astonish me; that is not customary." Darwin: "What is still more curious is that only the odd leaves are destroyed, whilst the even ones remain." Friend: "I don't understand." Darwin: "You can't understand it! Why, it's very intelligible. Every other page is gone. The obverse exists, but the reverse is absent. Don't you see now? But even that is not all. To

add to the misfortune, the pages that are preserved are just those that are dead against my theory, whilst those that are wanting are the very ones that would have proved it." The friend, assuring himself that the philosopher is in earnest, retires, muttering to himself, "Decidément, ces savants ont tous un petit coup de marteau."

An amusing book, written evidently by a man thoroughly imbued with the old doctrines, but not calculated to overthrow the Darwinian theory, much less the doctrine of evolution.

A Handbook of Hygiene and Sanitary Science. By GEORGE WILSON, M.A., M.D., and C.M. Ed., F.C.S., Medical Officer of Health for the Mid-Warwickshire Sanitary District, &c. Third Edition. London: J. and A. Churchill. 1877.

WHEN the first edition of this work appeared, we were enabled to commend its merits to the attention of all interested in practical sanitary work, and it is gratifying to find the correctness of our judgment in regard to it ratified by the popularity it has attained. The work has been out of print for nearly a year. This is the third edition, and the author explains in his preface that the delay in its preparation is attributable in a great measure to the desire to make the work still more worthy of continued confidence, and to incorporate all the more important facts and details connected with the recent rapid progress of sanitary science. We are not acquainted with any work of exactly the same design and character. It is accurate in point of information, clear in style, practical in its purpose and details, and sufficiently free from technicalities to be popular and generally useful.

Outline Diagram Forms for Clinical Case-books. By G. ROWELL, M.D. London: Smith, Elder, and Co.

THE clinical observer will find his labours much facilitated by the use of these admirable outline diagrams, which are, the author tells us, employed largely in the Leeds Infirmary. The outlines here given are remarkable for their diversity, including not only the ordinary views of the thorax and abdomen, but also special drawings of the head and face, sections of the male and female pelvis, the fundus oculi and each of the bones of the extremities, besides others. The external view of the skull is given, and we would suggest the addition of some views of the base of the skull, for the delineation of fractures observed after death. The author might also consider the advisability of dividing the book into several sections, in order to allow of more figures of the same kind being represented, for some are of necessity in much greater requisition than others.

New Inventions.

BAILEY'S PATENT ABDOMINAL BELTS.

MESSRS. BAILEY have introduced an abdominal belt possessing many advantages, not the least of which is the provision of orifices through which the hip-bones are allowed to project, thus serving to support and retain in position the upper portion of the belt, while the combination-straps, passing underneath and fastening in front, serve to secure the lower part of the belt, so as to prevent it "rucking" or creasing. The belt will be found an easy and comfortable abdominal supporter. Messrs. Bailey also make a gentleman's riding-belt on the same principle, the utility of which to any horseman with a weak spot in the abdominal parietes must be obvious.

TINSLEY'S PATENT BEDSTEAD.

We have seen, at Messrs. Maple and Co.'s rooms, an excellent invention, which will prove especially serviceable to invalids. The patent bedstead enables the occupant to be raised to any position without the least exertion or disturbance, all being effected by the turning of a winch-handle at the head of the bedstead. Whether in sligh cases of indisposition, which necessitates taking breakfast in bed, or in severer or chronic maladies, it will be found equally useful. The contrivance is at once ingenious and simple, and, what is of no small consequence, the bedstead is cheap.

THE "THROAT SPRAY."

Messrs. Corbyn and Co. have submitted to us a useful instrument for the application of remedies in the form of fine spray, more particularly to the throat and mouth. A special feature of the apparatus is a tongue depressor, which holds down that organ and leaves the way clear to the back of the throat.

MAW'S SELF-RETAINING CATHETER.

The self-retaining catheter which Messrs. Maw, Son, and Thompson have submitted to us was suggested by Mr. W. D. Napier, and exhibited by him lately at one of the Societies. The point of retention, instead of being within the bladder, as in many so-called self-retaining catheters, is placed within the fossa navicularis, in the urethra. It is obvious that such a catheter possesses many advantages which recommend it to the surgeon.

HYGIENIC GARTERS.

Few persons know the evils that are often inflicted by ordinary circular garters. The Patent Elastic Web Company, Clapham-road, S.W., have, however, produced a garter which is almost free from objection. By a peculiar arrangement of elastic webbing, which is finely corrugated inside silk ribbons, which form the outer casing, the garter is made permanently elastic without apparently impeding the circulation of the blood within the limb. From actual experience we are able to recommend, with a considerable degree of confidence, the so-called "hygienic garters."

THE TOXIC EFFECTS OF GLYCERINE.

GLYCERINE has hitherto been regarded rather as a food than as an agent capable of exerting any definite influence on the processes of the organism such as we assign to the substances regarded as medicinal agents. Still less has it been suspected of the possession of any poisonous properties. It has been given chiefly to increase the quantity of fat in the system, and is generally believed to have some power of improving nutrition, and checking wasting diseases. It has been given also as a convenient and harmless substitute for saccharine substances in the dietary of diabetics. In very rare cases it has been thought to have some medicinal property over and above its alimentary influence. It has been employed largely, for instance, in the treatment of scrofula, and by Gubler it has been praised as useful, given internally, in the treatment of obstinate acne.

Demarquay, however, had remarked that glycerine, in large doses, produced purgative effects. Mandl, experimenting for another purpose on aquatic animals, found that they soon perished in solutions containing one-tenth part of glycerine, and he suggested that their death might be due to the toxic properties of that agent. Dujardin-Beaumetz and Audigé, in some experiments on the poisonous effects of the monatomic alcohols, observed a circumstance which made them suspect that glycerine might possess some toxic properties. They had used glycerine to dilute the alcohols

for subcutaneous injection, and they found that the animals died sooner when glycerine was used than when water was employed to dilute the alcohol. These observers, therefore, in order to test the point, and ascertain the operation of glycerine, have studied the subject specially, and the results of their investigations have been lately published in the *Union Médicale*.

The series of experiments which are detailed establish without question the toxic properties of glycerine when injected beneath the skin of animals. A dog, for instance, beneath the skin of which 245 grammes of glycerine were injected, diluted with an equal quantity of water, died at the end of forty-five minutes, with general rigidity of limbs. It was found that when the quantity of glycerine injected exceeded ·8 per cent. of the body-weight of the animal, death followed almost invariably. Only one exception to the rule was noticed, and in that instance a dog recovered after injection of a quantity of glycerine corresponding to 1·1 per cent. of the body-weight. In this case the animal had drunk very large quantities of water, and to this the experimenters attribute its recovery.

The effects of the glycerine, both the symptoms which it produces and the rapidity with which death follows, vary considerably according to the dose employed. When the quantity injected exceeded 1·25 per cent. of the body-weight, violent convulsions, clonic or tetaniform in character, were invariably produced, and continued till death. These convulsions were accompanied by a remarkable elevation of the temperature, which sometimes rose as high as 109° F. After death there was found bright injection of cerebro-spinal meninges, and to this irritation of the meninges the convulsive symptoms and the elevation of temperature appeared to be related. Where the quantity injected was less than this proportion, the convulsive symptoms were absent, the animal gradually became comatose, and the temperature fell, and continued to fall till death, which occurred sometimes as late as twenty-four hours after the injection. After death the congestion of the cerebro-spinal meninges was slighter, but marked changes were found in the intestinal mucous membrane—vascular injection, and ecchymoses. These were regarded as the result of the attempted elimination of the glycerine by the intestinal glands. In one case, after the injection of ·8 per cent. of glycerine, the fall in the temperature amounted to 14 F. Symptoms of local irritation, in consequence of the injection of the glycerine, manifested themselves only when the life of the animal was prolonged for more than twenty-four hours, and then phlegmonous inflammation about the seat of the injection. Both this and the gastro-intestinal irritation were especially marked in one case, in which, after the injection of ·7 per cent. (per body-weight) of glycerine, the animal lived for four days. In addition to the other toxic symptoms, there were noted dryness of the mucous membranes, hæmaturia, vomiting, intense thirst, and muscular weakness. To this group of symptoms the experimentalists have given the name of "acute glycerism," and they compare it with the symptoms of acute alcoholism, which was studied by them so carefully upon the same animals.

The fall of temperature, after the injection of glycerine, follows a different course from that which is observed after an injection of alcohol. In the latter case the depression comes immediately after a brief period of reaction, and the fall steadily progresses till death. In glycerine poisoning, on the other hand, the period of reaction is naturally absent, and the temperature remains stationary in the first part of the period of poisoning, and only falls at a subsequent epoch, and the depression is never so profound as in the case of the alcohols by fermentation. The muscular relaxation is less pronounced in the case of animals poisoned by glycerine than in alcoholism, and is only manifested at advanced periods of intoxication. The very special character of the convulsive symptoms suggests rather the phenomena of strychnine poisoning than poisoning by alcohol. They are tetanic, and the slightest touch produces explosive cries. The coma occurs much earlier in alcohol than in glycerine poisoning—in the latter it occurred only in the later stages. Hæmaturia was noted by the experimentalists as a consequence of the action of some alcohols, especially the caprylic and œnanthylic, and they note that this is one of the points of resemblance between the effects of these alcohols and of glycerine.

Only an imperfect answer can be at present given to the question of how a dose of glycerine produces these effects. After death, besides the lesions in the intestinal mucous membrane, the liver is strongly congested, reddish-brown in colour, and its tissue is much disorganised. The kidneys present a very similar appearance. The lungs are gorged with blood, but present no effusions. The heart is relaxed, its cavities filled with blood. The blood itself is thick and dark. These changes are very similar to those which have been found in acute alcoholic poisoning in the same animals. Thus, with glycerine as with alcohol, the conclusion is that the primary action is upon the nerve-centres and on the blood. The other lesions are to be referred to the attempted elimination of the glycerine, which, like alcohol, is probably eliminated by the liver and intestine and the kidneys, and determines in the latter a congestion more acute than that which is produced by alcohol.

M. Dujardin-Beaumetz and Audigé deserve credit for their careful and important researches. As they point out, the use of glycerine in large doses in some diseases, especially in diabetes, renders a knowledge of its possible toxic effects of considerable practical importance.

THE SMALL-POX EPIDEMIC.

IN twenty of the largest English towns 93 deaths from small-pox were registered during the last seven days of March, against 114 and 87 in the two preceding weeks; of these 86 occurred in London, 4 in Liverpool, and 3 in Manchester and Salford, not including 10 fatal municipal cases in Monsall Hospital, situated outside the city of Manchester. No fatal case was recorded in the sixteen other of the twenty towns. In the outer ring of London suburban districts 10 deaths from small-pox were registered, against 14 and 7 in the two preceding weeks; 8 occurred in West Ham and Stratford, and 1 each in Twickenham and Willesden.

Within registration London the deaths referred to small-pox during the week ending 31st ult., were 86, whereas they had been 100 and 76 in the two preceding weeks. Of these 86 fatal cases 36 occurred in the Metropolitan Asylum Hospitals, 5 in other public institutions, and the remaining 45 in private dwellings. Notwithstanding the increased hospital accommodation provided by the Metropolitan Asylums Board, the proportion of deaths from small-pox occurring in private dwellings shows no decline. After distributing the hospital cases, it appears that 9 of the deceased small pox patients had resided in Poplar, 8 in Islington, 8 in Hackney, 8 in Southwark, and 7 in Bow. The disease appears to have caused fresh outbreaks in Islington and Hackney, but continues to show the greatest fatality in East London. The Registrar-General calls attention to the small proportion of fatal cases isolated in hospitals in Islington, Bow, Bermondsey, and Belgravia registration sub-districts.

The number of small-pox patients under treatment at the seven hospitals provided by the Metropolitan Asylums Board, which had ranged between 801 and 952 during the six preceding weeks, further rose to 993 on 31st March; this was a higher number than at any time since the commencement of the present epidemic. The number of vacant beds in these institutions on 31st ult. was nearly 300, of which, however, 128 were at Limehouse; the use of this latter hospital, even for convalescents, is to be discontinued as soon as those at present under treatment there are discharged, unless in case of urgent need. It is worthy of note that since this hospital has been in use not a single case of small-pox has occurred in Limehouse or its near neighbourhood, and it may be hoped that this will not be without its effect in checking selfish and cowardly panics which threatened to paralyse all efforts to provide necessary hospital accommodation for infectious diseases.

THE LANCET.

LONDON: SATURDAY, APRIL 7, 1877.

THE time has certainly arrived when the method of examining candidates for diplomas and licences should be carefully reconsidered. The results at present obtained are obviously unsatisfactory. We are not now thinking of the system pursued, or the judgments formed, by any particular court or board of examiners, nor is it our desire to institute comparisons. The general subject calls for scrutiny, and what we have to urge shall be aimed with a view to throw light on the situation as a whole, and to bring out its principal suggestive features.

First, as to the purpose which examiners propose to themselves. This is by no means as clear as it ought to be in the apprehension of teachers, pupils, and—may we add?—examiners themselves. For example, if the intent be to ascertain how many scraps of information a candidate can "get up" and remember for a special occasion, then of course the most perfect system of "cram" will produce the highest proof of excellence; the ingenuity of the teacher must be directed to the task of depositing the largest possible number of details in his pupil's memory, and the skill of an examiner will be shown in so framing his questions as to cover the widest field and elicit the greatest feat of recollection. Such a test so applied will be a trial of memory, and the result, if deemed satisfactory, may be a proof of industry. Nevertheless, it will be the lowest faculty of intellect which has been evinced. The successful candidate may, in point of fact, have no more real acquaintance with the items of information he has taken in and given out than the trained parrot who can be taught to utter certain articulate sounds of whose significance he has no intimate knowledge, which he has not made his own, and cannot, therefore, possibly apply. There is practically no limit to the power of memory. If, therefore, memory is the only or the chief faculty upon which the examiner calls and the pupil relies, there is no valid reason why examining boards should not go on adding subject to subject, until the successful candidate becomes an animated encyclopædia of useless knowledge, a marvel of capacity, a convenience, it may be, to those around him, but, as regards mental calibre and efficiency, on a par with organisms illustrious for the inordinate development of a particular tissue at the expense of others equally necessary to integrity and success. This is where the disadvantage of a policy of "cramming" comes to be felt. Although there are, relatively, no bounds to the cultivation of memory, the net amount of force available for brain-work is limited by the total strength of the individual, and what is given to memory is lost to judgment, and so on. You cannot throw an excessive burden on the mere carrying power of the mind without monopolising force which should go to strengthen the powers of reasoning, of research by scientific exploration, synthetical not less than analytical. This natural fact—and such it undoubtedly is—makes it especially important that the test employed in examining should be considered in relation to the faculty upon which the stress of its application will fall.

Examiners occasionally complain that if they set questions which require thought pupils have not the time, or lack the power, to answer them; while if they interrogate, as we have supposed, in a fashion which tends rather to elicit scraps of information than to try the reasoning power of a candidate, they are embarrassed in the task of determining how much he actually knows and what he has got by rote and only *remembers*. There is no difference of opinion as to the superiority of an intimate knowledge of any subject to that mere speaking acquaintance with topics or facts which enables a man to recollect and, in a certain rough way, state them. Meanwhile it is not, we think, sufficiently recognised that only a comparatively small field of science can be explored by a young man, and it is of incomparably higher importance that he should be trained in methods of working—in other words, that he should be qualified as a skilled workman—than that he should have scampered over a track of country he can never investigate, taking notes of the work done by others, and wasting precious time in acquiring the mere habit of industry. This is the point upon which we would fix attention. It is impossible to have all we could wish. Human nature is very elastic, but when strained beyond moderate bounds it either gives way or fails at some point; and, although the rupture or injury may not be instantly detected, the intellect, overtaxed in the enterprise of accumulating facts, will not, cannot, retain the requisite power to appropriate and digest them. We can make no reservation on this point. Splendid exploits of memory are incompatible with profound skill in reasoning. What is closely packed cannot be readily handled. There may be individuals with colossal capacities and powers that seem capable of working up to memory; such specimens of mental development are, however, rare, and no university or licensing body is justified in adapting the rule to the exception by providing for a race of intellectual giants. The standard must be fixed for men of more moderate calibre.

The problem resolves itself into an inquiry how to try the abilities of a candidate fully and fairly all round, to test him for processes and powers of working, not less than for work done. How is this to be accomplished? We venture to think, both the manner of examining and the subject-matter of the tests applied, will need to be changed. Examinations must, sooner or later, be so conducted as to give the candidate a fuller and fairer opportunity than he now enjoys for the display of what he knows, and to show how far he is able to apply his knowledge. This last point cannot be ascertained by putting the pupil through a few field manœuvres with scalpel and test-tube. A man of very moderate abilities, wholly incompetent to enter on the business of responsible practice, may prepare for an exhibition of this kind. The art displayed is imitative. The time directed to elaborate work of this description is wasted, and anything short of a somewhat detailed performance affords no proof either of memory or manual dexterity. There is

nothing to urge against practical examinations. They are probably the best tests of knowledge, but it is necessary they should be so conducted as to try practical acquaintance with useful subjects, and to elicit the reasons and motives of processes, rather than produce a brilliant display. We doubt whether they are always, or often, so applied. The training young men receive at many colleges and schools is not education, properly so called. This will continue to be the case; it cannot be otherwise, while examiners exact a multiplicity of facts, instead of proof that the scholar is possessed of the knowledge and power to prosecute research in any department to which inclination or necessity may direct his enterprise; in short, to ascertain what he has the ability to acquire, rather than how much the skill of his tutor or a retentive memory has enabled him to bring to the examination-table.

The load successive additions to the curriculum and the range of subjects have heaped on the student of medicine, will probably need to be lightened; not because it taxes his strength too severely, but because the feat of taking up and bearing the burden is so absorbing that there is no time to examine its contents. This necessity is not apparently yet manifest to senates and councils all intent on making good the claim to public and professional confidence. It is not unnatural that the friendly rivalry of faculties, mistaking magnitude for greatness, should take the form of a struggle to increase the extent of their requirements. A more intelligent but less ambitious policy would bestow better care on the quality of depth. This, however, looking to the political situation in relation to the question of technical education, is perhaps not to be expected. Our appeal at the present moment lies immediately to examiners. If, on consideration, it is deemed expedient to modify the method adopted in testing the attainments of medical students, we think it will be found the shortest and best course to reduce the area of the inquiry, and push it further in special directions. It is impossible to read the papers commonly set without feeling that while men of sterling ability may fail to supply respectable answers, the possessor of a good memory, well "crammed," can readily make success tolerably certain. The same general impression is conveyed by oral examinations. By taking a less wide field, and working it more fully, a better notion would be gained of the manner in which a candidate has pursued his studies, and the extent to which the knowledge he has obtained is assimilated. It is not necessary, nor is it desirable, to tax the memory of a student for such matters as the minute anatomical relations of parts which it is not important to remember. Nor are the recondite details of chemistry or botany essential to the information of a practitioner of medicine. The acquisition of such knowledge can add nothing to his stock of useful knowledge, nor will it strengthen the faculty of intelligent thought. On the contrary, superfluous labour performed by a brain working up to the normal pressure wastes power. The amount of intellectual force now scattered over a vast range of scarcely remunerative subjects should be concentrated, and more resolutely directed upon a few. This is the more necessary because the shortsighted utilitarian policy of the day has induced the trainers of youth to cast aside those subjects and methods of mind-culture which produced most of the brain-power by which the existing triumphs of science have been achieved. We commend the suggestions thrown out to the consideration of those who are casting about in search of a remedy for evils increasingly manifest and deplored. We think the means of ameliorating, if not altogether reforming, the unsatisfactory state of matters to which we have called attention rests with examiners, and to them the appeal for improvement is therefore made.

THE Public Health Bill (Ireland) now before the House of Commons is another illustration of the carefulness with which the Local Government Board (Ireland) fashions its ways to the example set by the corresponding Board in England. The Bill proposes to consolidate the various provisions with respect to sanitary matters and burial-grounds of the several Acts relating to these subjects in force in Ireland, which number not less than twenty it would appear, and "to amend the same where such amendment is required." The amendments are numerous, and in respect to the sanitary provisions bring them more into accordance with the English law on the subject; but still they are not such as to satisfy the medical profession of Ireland, as represented by the King and Queen's College of Physicians, the Royal College of Surgeons, the Irish Medical Association, and the Dublin Sanitary Association. It is not proposed to amend the provision of the Public Health Act (Ireland) of 1874 which includes among urban sanitary districts municipal towns and townships having commissioners, and of which the populations exceeds 6000, thus perpetuating in Ireland petty sanitary areas, which have proved not less fruitless of sanitary work there than the petty local board areas which prove a stumbling-block in English sanitary administration. The representatives of the medical profession in Ireland referred to are of opinion that urban sanitary districts in that kingdom should consist only of towns having a population exceeding 20,000. They further urge that it is important the Local Government Board should itself take the initiative in altering or combining sanitary districts, with a view to simplicity and uniformity of administration; that a system of medical inspection conducted by officers of the Local Government Board is necessary for the purpose of aiding sanitary authorities and their officers in their work, and for keeping the central authority duly informed of the condition of sanitary administration in the different parts of the kingdom; that it is desirable that the designations "medical officer of health" and "inspector of nuisances" should be substituted for the terms "sanitary officer" and "sub-sanitary officer" now in use; that the provisions of the law as to infectious diseases want amending in several specified details; that it would be well to authorise sanitary authorities to provide hospitals; that the keeping of cattle in urban districts without special licence should be prohibited, and that the sanitary authority should be empowered to make bye-laws for the management of places where animals are kept; and that the registrars of burial-grounds should be required to make a weekly return to the registrars of births and deaths of the names and causes of death of persons interred.

To the unsophisticated in central administrative matters these different suggestions seem so obvious, in view of the

efficiency of local sanitary administration, that they need no argument. Moreover, the suggestions are for the most part not novel; they have been urged aforetime when the Public Health Act (Ireland), 1874, was under consideration; they are now again urged after two years' experience of the working of that Act. That they should be omitted from the Consolidated Bill gives rise to a fear that, notwithstanding the amendments therein suggested, the Local Government Board (Ireland) purposes to follow the same course as the corresponding board in England, and aim chiefly at consolidation. The question of sanitary legislation for Ireland is, however, much simpler than for England, and the Irish Local Government Board might venture on a course of amendment of the sanitary law in conjunction with consolidation which could, perhaps, hardly at present be attempted here. But, unfortunately, the Irish Board has from the beginning taken example from the English Board, and with hardly less disastrous results for sanitary administration. It has adopted the policy of ignoring or of endeavouring to supersede or depreciate medicine in the administration of the sanitary law, with the result that on the one hand it has frustrated in a large measure the proper administration of sanitary law, and on the other done a grave injustice to the medical officers of health—the "sanitary officers" appointed under the law. These officers—the dispensary medical officers—have had assigned to them, under the example and at the instigation of the Local Government Board, emoluments for the onerous sanitary duties they are compelled to undertake by the Public Health Act, 1874, which, as a rule, are an insult to a liberal profession and a disgrace to a Central Administration. Judging from the scale of increment of salaries for the performance of sanitary duties adopted by the Local Government Board (Ireland), and which guides the decisions of sanitary authorities on the subject, that Board either holds that sanitary work is of very trivial importance, or, for so-called economical purposes, it takes unmerciful advantage of the position the dispensary medical officer has with regard to it and the hold which it has over him. The first alternative suggested, however, cannot be entertained, for however beggarly the medical officer's sanitary pittance may be, it is not permitted to be pleaded in excuse for neglectful, or partial, or rather scanty performance of sanitary duty.

The introduction of the present Consolidating Bill for the sanitary laws of Ireland into the House of Commons will, we hope, give occasion for this question being again raised there, as well as the questions of amendment more immediately arising out of the provisions of the Act; and we trust that the session of Parliament will not close without such an expression of opinion in the House as will at least induce the Local Government Board to revise and largely increase its scale of salaries for "sanitary officers."

A SERIES of experiments undertaken by Dr. ROSENBACH, of Jena, with a view of elucidating certain points in the mechanism of respiration, have led him to some interesting conclusions, of which the following is a *résumé*. He finds, in the first place, that the ordinary movements of respiration are induced or liberated by the peculiar quality of the blood traversing the vessels of the medulla oblongata—are due, in fact, as ROSENTHAL long ago expressed it, to the venosity of the blood in these vessels. The phenomena which appear to demonstrate that stimuli to the act of respiration may proceed from the lungs and be conducted to the respiratory centre by the vagi are either, he thinks, unsatisfactory, or are capable of another interpretation. The vagus nerves are really inhibitory nerves for the acts of respiration, so that every mechanical, electric, or other stimulus conducted to the respiratory centre in the medulla oblongata by the vagus nerves or their branches causes either a total arrest of respiration in expiration, or at least an act of expiration. At the same time such an expiration is not to be regarded as an active proceeding, for impulses proceeding from the centre are always inspiratory; it is merely a return of the innervated parts to a state of rest, due to the interruption of the activity of the central inspiratory centre. The inhibitory influence just referred to may be exerted by stimuli acting either on the trunk of the vagus itself or upon its superior or inferior laryngeal branches. The mode in which the inhibitory influence of the vagus is exerted appears to be by effecting the contraction of the bloodvessels of the medulla oblongata, the contents of which constitute the proper stimulus to the act of inspiration; for it is evident that if the venous character of the blood circulating in the medulla be the primary stimulus to the act of inspiration, and the action of the vagus is to contract the vessels, the stimulus will be reduced proportionately to the diminution in the diameter of the vessels. The vagus is thus to be regarded as the vaso-motor nerve, in the sense of being a constrictor, of the vessels of the medulla oblongata. But how is apnœa, or that arrest of respiration which occurs when in artificial respiration the blood is surcharged with oxygen, to be explained? The answer is twofold: on the one hand, there is an excess of oxygen in the blood, which is consequently a less potent stimulus to the medullary respiratory centre, as it circulates in the vessels of that centre; and, on the other hand, the mere mechanical extension of the lungs acts as a stimulus to the vagus, which immediately effects the contraction of the vessels of the medulla, and thus still further tends to diminish the number and depth of the respiratory acts. M. ROSENBACH considers that the inhibitory influence of the vagus on the heart admits of a similar explanation, and that this well-known effect is really due to the vagus when stimulated causing a contraction of the coronary arteries, of which he regards it as the vaso-motor nerve. Against this, however, it may be stated that the inhibitory influence of the vagus on the heart is well marked in the frog, though, as HYRTL showed many years ago, the heart of the frog does not possess vessels.

Some explanation is afforded of the varying rapidity of the pulse in the acts of respiration by ROSENBACH's researches, for, as is well known, the heart beats more rapidly just at the commencement of expiration; but at this time the blood in the vessels of the medulla oblongata is most highly oxygenated, or, in other words, is least venous, and hence constitutes a feeble stimulus for the inhibitory centrifugal or cardiac fibres of the vagus; but the inhibitory influence of the vagus on the heart being diminished, it follows that the heart beats more rapidly. The same line of argument applies to the increased rapidity of the cardiac action

observed after section of the vagi on both sides, for no inhibitory influence can now be exerted on the heart at all, or, as M. ROSENBACH puts it, the coronary arteries can now no longer be constricted. A considerable number of experiments upon rabbits, in which the accession of apnœa was hastened and its duration prolonged by the performance of artificial respiration after large bleeding, showed that the stimulus of the blood was due to the presence of certain exciting substances. The effects of these were, however, greatly diminished by the presence of oxygen, and this affords an explanation of the apparent contradiction, that both the addition of oxygen, and the contraction of the vessels, can act as stimulus-lowerers. Oxygen effects a qualitative change in the stimulus, and contraction of the vessels a quantitative change. M. ROSENBACH suggests a different explanation from that generally adopted in respect to the peristaltic movements that may be induced in the stomach and intestines, on irritating the vagus in the neck. It is not, he maintains, because these nerves are the motor nerves of the stomach, but that stimulation of the vagus occasions prolongation of the heart's beats, or even complete arrest of its action, which leads to increased venosity of the blood, and this venous blood constitutes a stimulus for the ganglia of the stomach and intestines. In further proof of this he observes that irritation of the vagus below the heart causes no contraction of the stomach. The splanchnics are the vaso-motor nerves of the intestines in the same sense as the vagus is for the medulla oblongata, heart, and stomach.

Annotations.

"Ne quid nimis."

THE ADMISSION OF WOMEN TO THE MEDICAL DEGREES OF THE UNIVERSITY OF LONDON.

IN the copy of the proceedings of the Senate just issued is to be found the division list on this important matter. The Chancellor having called attention to the opinion of the law officers on the subject, it was moved by Mr. Osler, "That in the opinion of the Senate the University should exercise the powers conferred by the Act 39 and 40 Vict., c. 41." To this an amendment was moved by Mr. Goldsmid, "That it be referred to a committee to consider on what terms, if any, and under what regulations, it is expedient that women should be admitted to any of the degrees of the University." This amendment was lost, and Mr. Osler's original motion was then put and carried. The "ayes" included the Chancellor and Vice-Chancellor, Lord Kimberley, Dr. Billing, Mr. Fitch, Sir Wm. Gull, Mr. Heywood, Mr. Hutton, the Master of the Rolls, Mr. Lowe, Mr. Osler, Sir James Paget, Lord Arthur Russell, and Dr. William Smith. The "noes" were Lord Cardwell, the Dean of Lincoln, Mr. Goldsmid, and four medical members—Sir William Jenner, Dr. Quain, Dr. Sharpey, and Dr. Storrar.

It was then resolved that it be referred to a committee to report upon the mode and conditions in and upon which effect should be given to the foregoing resolution. This committee consists of Lord Cardwell, Lord Kimberley, Mr. Fitch, Sir W. Gull, Mr. Hutton, Mr. Lowe, Mr. Osler, Sir James Paget, Dr. Williamson, and Dr. Storrar. It will thus be seen that of the four medical men who voted against the motion only one, Dr. Storrar, is upon the committee. It is, we think, to be regretted that neither Dr. Sharpey nor Sir William Jenner, the only two opponents to the measure who have any practical knowledge of medical education, was nominated for the committee.

Sir George Burrows and Dr. George Johnson, who are both members of the Senate, were not present at this meeting.

DR. COLAN.

WE are glad to record the fact that Dr. Thomas Colan, senior medical officer of the late Arctic Expedition, has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets. Dr. Colan, after a very distinguished college career, entered the Royal Navy as assistant-surgeon of the *Royal George*, 120 guns, Captain (now Sir Henry) Codrington, in 1853, and was employed in this ship during the Russian war in the Baltic in 1853–55. Returning in the autumn of 1855, he was appointed assistant-surgeon of the *Pylades*, 21 guns, in which ship he again visited the Baltic, in the advanced squadron in the ice, in 1856. At the close of the war he went in the *Pylades* for service on the North American and West Indian station, and, after serving in the *Boscawen* (flag-ship), returned to England as assistant-surgeon in charge of the *Scorpion*, 6 guns. On arrival at home, he was commissioned to the *Hastings*, 60 guns, coast-guard ship, at Liverpool, Captain (now Admiral Sir William) Mends, K.C.B., and served in her from 1857 to 1859, when he went in the *Beagle* as assistant-surgeon in charge to China, and was employed there from the latter date to 1862. On promotion to surgeon, he returned home, and was appointed surgeon of the *Research*, 6 guns, ironclad, and served in her till 1867, when he joined the *Malabar*, troop-ship (Captain Rich), as surgeon, and served in her in the Red Sea and India till the spring of 1870. In October of the last-named year he was appointed to the *Thalia*, 6 guns, Captain (now Sir J. E.) Commerell, K.C.B., V.C., and proceeded in her to the Cape of Good Hope, where he was turned over, with the officers and crew, to the *Rattlesnake*, in July, 1871, and remained in her till paid off in England in 1874. Dr. Colan was gazetted staff-surgeon of the *Unicorn*, drill-ship for the Royal Naval Reserve at Dundee, from Sept. 1874 to Jan. 1875, when he was appointed to the *Duke of Wellington* for Arctic service as senior medical officer, and has been prominently before the public since his return in October last in connexion with the outbreak of scurvy, and the late investigation as to the causes of that outbreak.

Dr. Colan has been awarded the Blane Gold Medal—the Blue Ribbon of the Naval Medical Service—for his "Journal of the West Coast of Africa" (1872); for his successful treatment of Commodore Commerell when so desperately wounded on the river Prah he received great praise from those in authority; and was specially promoted to the rank of fleet surgeon for his distinguished services during the Ashantee war.

Dr. Colan was present at the capture of the Taku Forts in China, and was actively employed on the Peiho river. He is the writer of some valuable medical and other papers, and wears medals for the Russian, China, and Ashantee wars, and the Arctic medal.

A VALUABLE EXAMPLE.

IT is universally acknowledged that one of the great difficulties in the way of reforming medical education is the dealing with what are known as vested interests. Were it not for these "vested interests" we should have seen one portal to the medical profession, or at least to its lower grades, established many years ago. Of the nineteen examining bodies many exist only for the purpose of taking the fees, and were it possible to indicate some method of

compensating them for the loss of these fees, we should have no difficulty in lessening the number of bodies empowered to grant licences to practise.

The Corporation of Serjeants "learned in the law" have shown us how to cut this Gordian knot. They have not waited till the advent of some reforming and spoliating minister who, urged thereto by questions in the House, might have handled them roughly and confiscated their property; but, with an amount of wisdom which does them infinite credit, they have recognised their dawning obsolescence, have submitted their ancient Inn to the auctioneer's hammer, and have been enabled to give themselves nearly £1500 a piece as some consolation for being snuffed out.

Is there any reason for continuing the licensing power of a trading corporation whose charter was granted in 1543, and which, notwithstanding a brilliant career of usefulness to the profession and the public, between the medical corporations on the one hand and the Pharmaceutical Society on the other, must begin to find its sphere of usefulness growing daily narrower? What is the value of land in the neighbourhood of Blackfriars-bridge? What profit would accrue to the master, warden, and members if they made their bow to the world in the graceful manner which has been instituted by serjeants learned in the law?

FORGED SIGNATURES TO MEDICAL CERTIFICATES.

THE 40th section of the Births and Deaths Registration Act of 1874 enacts that any person who makes any false certificate for the purposes of that Act, or forges or falsifies any such certificate, and any person who uses any such false certificate as true, or gives or sends the same as true to any person, shall for each offence be liable on summary conviction to a penalty not exceeding £10, and on conviction on indictment to fine or imprisonment with or without hard labour, for a term not exceeding two years, or to penal servitude for a term not exceeding seven years.

All thoroughly imbued with the inviolability of Acts of Parliament would be apt to believe that if a person were bold enough, in the face of this 40th section of the Births and Deaths Registration Act, to issue a medical certificate with the forged signature of a registered medical practitioner for registration purposes, and if the certificate were discovered to be false, prosecution and conviction would follow naturally, and as a matter of course. It may be useful to learn that such is not the case, even at the cost of one's faith in the sanctity of Acts of Parliament. In May last a medical practitioner reported to the Registrar-General that an unqualified practitioner had forged his name to a medical certificate of the cause of death, for registration purposes. The Registrar-General replied that he should be glad to hear that the offending unqualified practitioner had been prosecuted and convicted, either by the General Medical Council or by the Medical Defence Association, but declined to institute a prosecution himself. The case was then reported to the Medical Council, and by their President was brought under the notice of the Home Secretary at the end of September. It appears that, in course of time, the Treasury solicitor was instructed to proceed against the unqualified practitioner who had issued the false certificate, should there appear to be sufficient evidence to support such prosecution. Towards the end of February, more than nine months after the offence was committed, the President of the Medical Council was informed that "under the circumstances," the Secretary of State did not propose to pursue the case further. At the same time Mr. Poland, in an opinion on the case, is reported to "think it desirable" that the practice of "unqualified medical men forging, for their own purposes, the names of qualified medical men to certificates of death" should be put a stop to. We can confidently assert that this opinion will be cordially endorsed by the whole body of the medical profession, as well as by a large portion of the public outside the profession. It is not, however, encouraging to find that a case so apparently simple should have broken down instead of leading to a conviction. The Medical Council owes it to the profession to state the grounds on which it was decided not to pursue the case any further, in order that it may not be concluded that such an offence can be committed with impunity. There are grounds for grave suspicion that in some instances registered practitioners permit their unqualified assistants to sign their names to certificates. Should these suspicions be well founded—and it is to be hoped that they are not—it cannot be unimportant to know whether such forging, with consent, would constitute the offence referred to in the 40th section of the Births and Deaths Registration Act, rendering the offender liable to fine or imprisonment.

CONTEMPT FOR DANGER.

CERTAIN of our lay contemporaries have, during this brief holiday season, contrived to extract a fair amount of humour out of the somewhat grim subject of adulteration. Amusing reflections have been made, and pliant articles produced, *à propos* the awakening sense of unwillingness to be poisoned by the air we breathe, the food and drink we consume, the drugs with which we are dosed, and even the clothes we wear. The not unnatural prejudice in favour of purity and cleanliness, health and honesty, has been a little unkindly satirised as the outcome of a weak and timorous nature. That view of the case was, we admit, strictly appropriate to the occasion, but it would be a misfortune if any casual reader chanced to be impressed with the belief that leading organs of public opinion regard the subject of this pleasantry as unimportant. Without doubt the outcry against adulteration is of comparatively recent origin, and THE LANCET is responsible for having first raised it by the memorable Commission on Food. It must, however, be borne in mind that the refinements of modern life in cities and populous districts, render it each year increasingly necessary that every source of injury to the public health should be eliminated. The pace quickens, the need of pure and easily assimilated food is intensified, and the peril of injury grows greater with the increasing impetus of competition and momentum of enterprise. The community must face this augmenting necessity for care and precaution. We cannot afford to run the risks our fathers dared years ago, nor, indeed, were the dangers of adulteration, disease-spreading, and blood-poisoning to which they were exposed comparable with those which beset us. The struggle of trade has come to be a hand to hand fight for profit, and new weapons, treacherous and deadly, have been forged against which we must arm ourselves. Let those give way to boundless merriment who in their hearts believe they are *safe*.

THE GROCER'S LICENCE AGAIN.

A STRIKING though melancholy proof of the peril to which we recently directed attention in connexion with the working of the grocer's licence has occurred at Brentford. It is recorded in the *Surrey Advertiser and County Times*, a paper which has already done good service by helping to expose the evil now so painfully illustrated. Two boys, one *thirteen* the other *eleven* years of age, were brought before the magistrate last week charged with being "drunk." They were so deeply intoxicated that it was necessary to carry them. The younger of the two had saved up his money and bought

two bottles of sherry at a grocer's, one on Friday week, the other the next day (Saturday). A party of youths was formed in a field, and the wine consumed. This is precisely what we predicted might happen, and, as a matter of fact, will happen, until the law which allows tradesmen with no responsibility and not under control of the police to sell drink to casual customers is repealed. Women and children are recklessly exposed to dangers which do not attend the legitimate trade of the licensed victualler or wine merchant. No respectable woman is likely to enter a public-house, particularly in her own immediate neighbourhood; children of tender years could not venture across the threshhold unless known, and they would not be served with drink without due precaution. Decency and law combine to protect the weak and unwary. The grocer's licence meanwhile creates a covert facility for tippling; it holds out a special inducement to women frequenting the grocer's shop for ordinary purchases; and, as we asserted, and the public must now be convinced, children, who ought to be kept from evil, are provided with an opportunity of spending their pocket-money in the way probably of all ways the most pernicious to mind and body. The evil effects of this licence are so many and manifest that we must again urge its consideration by the Select Committee of the House of Lords now engaged with the drink question.

THE DWELLINGS OF THE POOR.

Two additional schemes for the improvement of the dwellings of the poor have been investigated by Mr. Cubitt Nichols, the Government inspector, one in Bedfordbury, and the other in Clerkenwell. The amount of overcrowding, and consequent sickness, in both of these districts is so great, and so absolutely beyond dispute, that it is hard to conceive that any objection raised will be considered valid. There seems to be a very general fear abroad that these dwellings will not be occupied by the *very* poor, for whom, it is argued, they are intended. It is asserted that new industrial dwellings are very rarely filled by the inhabitants who have been displaced to make room for the new buildings. It is no doubt much to be desired that the very poorest—the criminally poor even—should be wholesomely housed, but to do this it is evidently necessary to call in the aid of charity. Charitable persons have done much in this way, and notably Lady Coutts, and the Marylebone Association under the guidance of Miss Octavia Hill. Lady Coutts has built huge and magnificent dwellings near Columbia Market, and the Marylebone Association have done great good by *improving* existing dwellings without displacing the inhabitants. This work, however, is strictly charitable, and, if remunerative, it is only so to a very slight extent. It is manifestly hopeless to expect to house the great mass of the London poor on a charitable basis, and indeed it would be most undesirable to attempt to do so. We think that the only true principle is that started by Sir Sydney Waterlow's company, to erect dwellings, and let them at their proper market value, limiting the dividend to 5 per cent., and employing the surplus in erecting fresh dwellings. It is not only the very poor who are badly housed, but the two or three grades above them, and it cannot be helped if the comparatively well-to-do seize with avidity on the new dwellings. This must have the effect of depreciating the value of the houses which have been vacated, and of bringing them within reach of the incomes of people lower in the social scale, so that it may reasonably be hoped that the *very poor* will benefit indirectly, if not directly, by the various schemes on foot; and the day will ultimately come, no doubt, when every grade of the industrial classes will be housed in "industrial" dwellings scientifically planned.

THE CONVERSION OF BURIAL GROUNDS.

THE thanks of Londoners are certainly due to the Rev. Harry Jones, the benevolent Vicar of S. George's in the East, for having pluckily led the way in converting our old, disused burial-grounds into places of public recreation. The example set in the east end is being followed in the south, and already steps are being taken to convert the churchyard in the Waterloo-road into a pleasant garden for the inhabitants. We hope that this example will not be lost upon the authorities of St. Marylebone, and that we shall soon see the huge graveyard which extends on either side of Paddington-street converted into a health-giving and pleasant recreation-ground. This burial-ground covers an area of about 15,000 square yards, or rather more than three acres, and were it converted into a garden by the removal of the tombstones and the planting of the surface it would prove a benefit to the Marylebone Workhouse and the poor who inhabit its eastern boundary, as well as to the dwellers in Manchester-street and other neighbouring streets, who would be heartily glad to get rid of the patch of hideous gloominess which at present benefits neither the living nor the dead.

In making these alterations it would not be necessary to abolish all record of the departed; and it would, we think, be a good plan to build a cloister along one side of the enclosure, which might receive the names of the occupants of the graveyard, and would prove an agreeable and sheltered promenade in wet weather. Besides her parks, which are the noblest in the world, London will some day have a good sprinkling of picturesque gardens; and should science ever teach us to use our fuel with economy, and thus cleanse our atmosphere, our city may compare not unfavourably with the bright and sunny capital of France.

CONDEMNED MEAT.

IT is satisfactory to know that Mr. Plimsoll is at last following the advice tendered to him many times in the columns of THE LANCET. Better late than never. The honourable member for Derby, having discovered that ships, however perfect in construction, and however well their cargoes are stowed, are not seaworthy if manned by unseaworthy sailors, writes a letter to *The Times* with the above heading *à propos* sales of old meat at the Royal Navy victualing stores. He recites therein "that some frightful cases of scurvy have occurred in ships provisioned with these secondhand or condemned stores," and that he ascertained this more than a year ago. We may point out, for the information of Mr. Plimsoll, that bad meat has been long classed as an exciting cause of scurvy in the mercantile marine, and that a notable case—viz., that of the *Royal Sovereign*—was reported in a large Blue-book on the Health of Crews that appeared in the autumn of last year.

The writer of the letter above quoted (which appeared in *The Times* of the 17th ult.) then, after describing very sensationally some of the leading symptoms of scurvy, says:—"Several cases I could cite at this moment, where more than ten men in a single ship had died during the voyage, and the crews had reached their destination in a condition almost too frightful for description." We are astonished that the well-known philanthropic proclivities of Mr. Plimsoll did not—and even now do not—lead him to give fuller details as to the extraordinary statements above-quoted. It appears incredible to us that during the past eight or ten years three terrible catastrophes of this nature could have occurred, and no questions been asked as a consequence. We assume, of course (as is the evident suggestion of Mr. Plimsoll), that this mortality, amounting to from 30 to 40 per cent. of the crew, occurred from scurvy, and not from

cholera, yellow fever, or some other zymotic disease. The real object of Mr. Plimsoll's letter is to blame the Admiralty authorities for selling condemned naval stores that may afterwards be used for food afloat. If Mr. Plimsoll can cite the cases of even two ships in which ten of the crew died from scurvy, the knowledge, however acquired, ought long since, in the interests of humanity, to have been made public.

THE DETRACTORS OF VACCINATION.

WE are constantly receiving communications from sensible folk asking advice as to the replies they shall make to those curious people who decry vaccination. This week one is sent to us containing a letter from Mrs. Mary C. Hume Rothery, who has distinguished herself more than any other person, unless we except her husband, by prejudice on this subject. The absolute protection of the nurses in the Small-pox Hospital is a very sore point with these persons. It is unanswerable. Mrs. Mary Hume Rothery has something to oppose to Mr. Marson's marvellous statement that "for just upon thirty years we have revaccinated all the nurses and servants who had not had small-pox on their coming to live at the Small-pox Hospital, and not one of them has contracted small-pox during their stay there." It is no answer to this to adduce cases of persons getting small-pox within two or three days of revaccination, which in their desperation anti-vaccinationists are doing. Mrs. Hume Rothery says that it was given in evidence by Dr. C. T. Pearce that one of the revaccinated nurses had the small-pox in 1871. We have not heard of any nurses having the small-pox who had been revaccinated a proper time previous to undertaking duties. As small-pox takes ten or fourteen days to declare itself, there is ample time to get vaccinated while it is already in the system, and there have been cases of this sort. But they in no way invalidate Mr. Marson's awkward and simple sentence, which should be published *per se*, and distributed broadcast in every affected town. Even if one case did happen after successful revaccination had had time to protect the system, the course of all sensible people would be the same—viz., that taken by Mr. Marson to protect his nurses. But what is to be thought of the state of mind and feeling that is so anxious to twist and discredit one of the most beneficent facts in history, action upon which would have saved this metropolis from the plague that is now causing nearly a hundred deaths a week, and making widows and orphans and paupers at a rate that it is appalling to think of?

IMMATURE WINES.

MUCH of the injury done by "wine-bibbing," short of the disturbance caused by excess, may be traced to the character of the beverage consumed. Exceedingly little of the fermented juice of the grape which reaches this country is chemically mature. Instead of being left a sufficient length of time in the wood, surrounded by a porous material which permits the free spirit to pass away, carrying with it some of the injurious products of decomposition and constituent change, the wine is hastily bottled, and, despite the notion that the process of maturing proceeds, it is certainly arrested, or its progress is retarded. When the fluid is taken into the stomach, it immediately undergoes rapid transformation, new combinations are formed, and spirit is liberated. The effect of this metamorphosis, with its attendant consequences, is to upset the stomach, exciting fermentation in the food, and giving rise to gastric irritation which only a strong organism can resist. It is possible that to this, among other causes, we owe the prevalence of diseases of ow type. Wine-drinkers should resume the old practice of importing and storing wine in the wood.

ÉCRASEURS.

THE ease, rapidity, and immediate safety with which the tongue can be removed by the galvanic écraseur ought not to lead surgeons to overlook the serious drawbacks to this employment of a most valuable application of electrical science to surgery. These drawbacks are threefold, only one of which was noticed by the various speakers at the last meeting of the Clinical Society when this subject was discussed. The great danger in the use of the hot wire arises from the putrefaction which takes place in the slough over the stump of the tongue. This poisons the air passing into the lungs, which then sets up acute and very fatal bronchitis, with, in some cases, a low form of pneumonia. We believe that most of the deaths after this operation are produced in this way. Another danger is septic absorption from the wound, causing cellulitis around the larynx, pharynx, and great vessels of the neck, with œdema glottidis; and when the slough separates, the patient runs a serious risk of secondary hæmorrhage, which is not unfrequently fatal. These dangers are so great that many surgeons are returning to the use of the simple wire écraseur, which, although less convenient at the time of operation, is, on the whole, safer. The wire severs the tissues without leaving a thick slough to putrefy and slowly separate, and primary hemorrhage may be surely prevented by proceeding slowly and carefully. Rapidity in action is the danger, for the wire has to *crush*, not *cut*, its way through. If this precaution be taken, the operation should be as bloodless as if the hot wire had been used, and the consequent risks to the patient far less.

HEALTH OF THE POPE.

THE medical history of the Pope during the days of last week when his condition aroused such trepidation at the Vatican is, we have authority for stating, the following:—Having shown manifest symptoms of weakness as long ago as the 12th, when, in attempting to read the allocution, he broke down at the third paragraph and was unable to proceed, he was warned by his physicians to desist from all exertion or source of excitement whatever. He observed these injunctions, with obvious advantage, till a few days ago, when, receiving some French priests, he suddenly gave a sharp cry, and complained of severe pain in the right leg. The prelates around him and the priests tried to induce him to withdraw to his apartments, and were sending for assistance, but he declined, and forbade anyone being sent for until he had spoken to each of the French dignitaries in turn and bade them farewell with his benediction. The effort, however, cost him much, and on regaining his apartments he had one of those epileptoid seizures which generally follow his exertions of mind and body when in pain. In bed he still complained of his right leg, but all anodyne treatment was withheld as his pulse was extremely low. By the 22nd the pain had disappeared, but persistent insomnia and anorexia had left him so weak that his medical advisers had recourse to a restorative regimen, accompanied with the free use of Bordeaux. After keeping his bed for sixty hours consecutively, he rose, with the consent of his physicians, and has transacted some business every day since, though he has had to be carried to and from his apartments in a chair. The insomnia and general languor, however, have not yet been overcome, and the closest attention is paid to every symptom, so as to obviate any sudden failure of vitality, which might be followed by irremediable collapse.

On Easter-day the hundreds of French pilgrims who saw the Pope carried in his arm-chair through the Loggie of the Vatican, were shocked to observe his inability to move and

his general prostration. Sciatica has recently been added to the other ailments from which he has long been a sufferer, and a French physician, who was present at the reception of the 1st inst., smiled sadly when told, in the language of the bulletins that the Pope had "completely recovered," and described him as little better than a pathological museum (*une musée pathologique*).

ANTHROPOLOGY AT THE ROYAL COLLEGE OF SURGEONS.

AT the concluding lecture of his interesting course on the Comparative Anatomy of Man, Professor Flower exhibited and explained the use of the Stereograph, a very ingenious instrument, invented by Professor Broca, of Paris, for the purpose of taking mathematically accurate drawings of human crania and other anatomical subjects. This instrument has lately been presented to the College by the President, Mr. Prescott Hewett, and will be a useful adjunct to the systematic study of the important collection of human crania now contained in the museum, which has lately received many valuable accessions. Among these, in addition to the *Pandora* Esquimaux skulls, mentioned in our columns a few weeks since, are a series of thirteen skulls of natives of the East Coast of New Guinea, collected and presented by Dr. Comrie, Staff Surgeon R.N., of H.M.S. *Basilisk*; four of natives of the Samoa or Navigation Islands, by Dr. Pye-Smith; a Bulgarian, killed in the recent war in Turkey, by Mr. A. Leslie; and an Andaman Islander, by Dr. Protheroe Smith. On several occasions during the course of lectures, Professor Flower pointed out that far larger series of human skeletons and skulls are required than are at present contained in our museums, before our knowledge of the comparative anatomy of man can be placed on a satisfactory basis, as the individual variations are so great that it is only when a considerable series of any race can be brought together and compared that their true characteresties can be determined.

NEW TEST FOR BLOOD.

AT a late meeting of the Académie des Sciences at Paris (March 5th, 1877), M. L. Cazeneuve brought forward a new test for blood, which may, perhaps, be of importance in medico-legal investigations, and which consists in observing the action of hydrosulphite of soda on the hæmatosine of the blood. He makes with boiling distilled water and a little ammonia an alkaline solution of ammonia. This solution is placed in a vessel adapted for spectroscopic examination. The characteristic band of alkaline solutions of hæmatosine is then seen to be present. If now a drop or two of the solution of the hydrosulphite is added to this liquid the dichroic tint of the alkaline solution instantaneously disappears, and is replaced by a crimson (rouge-vermeil) tint, which closely resembles the colour of a solution of oxyhæmoglobin.

CORONERS AND UNCERTIFIED DEATHS.

WITH reference to the large proportion of uncertified causes of death in South London, so frequently noticed by the Registrar-General, we are informed that within the Woolwich registration district a constable of the metropolitan police has been specially appointed to investigate the circumstances connected with every death of which the cause is uncertified and which is brought within the knowledge of the coroner. Upon the constable's report of the facts of the case the coroner bases his decision as to whether an inquest shall be held. This may be a step in the right direction, and a police inquiry may tend to some extent to check neglect to provide qualified medical assistance in case of illness; but this arrangement only attempts to ascertain whether there is any suspicion of foul-play, and gives no assistance towards providing scientific evidence of the cause of death for insertion in the death-register. If, however, the district Poor-law medical officer or the local medical officer of health were authorised in all such cases to conduct the preliminary investigation, he would be in a position to give a certificate of the probable cause of death, and would certainly be better qualified than a police constable to advise the coroner of the facts necessary for him to decide upon the desirability of holding an inquest.

HONORARIUM AND HONOUR.

THE fee paid to the physician for his services has always been regarded as an "honorarium"—a voluntary offering—not a legal obligation. Such being the case, the fee is emphatically a debt of honour, and as such it is incumbent on all honourable men to see it promptly paid. As a rule this is the case, but of late we have heard of many instances where payment of the fee has been evaded, and that too by persons of social position and repute. We would remind these persons that the Medical Act of 1858 gives physicians power to recover their fees in the county court as registered practitioners, though we fancy few would care to undertake the trouble and annoyance of such a proceeding, unless the fee were of considerable amount. A person who neglects to pay his debts of honour ought to be excluded the society of gentlemen. Our brethren at the bar are wiser in their generation than we, for they receive a heavy instalment of their fee before undertaking the advocacy of a case. We hope, however, the day is far distant when English physicians will have to protect themselves from dishonourable conduct by demanding their fees beforehand.

THE HEALTH OF THE PRINCE OF WALES.

IT is with great satisfaction we are able to record the rapid and well-nigh complete recovery of His Royal Highness the Prince of Wales. The malady indicated in our article last week has been relieved. The Prince's condition has greatly improved, and it is hoped an early sojourn in a warmer clime may conduce to perfect restoration and renewed strength. Meanwhile it is, we think, but a loyal hope to express that His Royal Highness may recognise the need of rest, and such abstinence from exertion, physical and mental, as may render the full benefits of change of scene and climate available. It was no mere passing interest which the people of England evinced in the welfare of the Prince of Wales when he lay on a bed of sickness, and it is no mere formal solicitude which this suggestion is intended to convey.

DEATH WHILE UNDER THE EFFECTS OF NITROUS OXIDE.

IT is with great regret that we have to announce the death of Mr. George Morley Harrison, which took place at Manchester on the 27th ultimo, while under the influence of nitrous oxide gas. The particulars which up to the present time have been furnished are too meagre to draw from them any scientific conclusions, but it is to be hoped that the great importance of the matter will induce the friends of the deceased, as well as the gentleman who had the unhappy chance of administering the gas, to furnish all details for the instruction and warning of the profession. One or two deaths have previously occurred during the administration of laughing gas, but in no case has the anæsthetic been held answerable for the death. In one case a gag unfortunately slipped into the larynx; and in another case the patient at the time of the administration was in a state of extreme exhaustion, due to extensive phthisical disease of the lungs. It appears that Mr. Harrison was suffering from tooth-

ache, and late in the evening he went to Mr. E. H. Williams, a dentist, who lived next door, to have some teeth extracted. Mr. Harrison asked to have some nitrous oxide administered, and the first administration not proving sufficient, he asked Mr. Williams to allow him to inhale the gas till he snored. Immediately after the extraction of the teeth symptoms of syncope ensued, and death was the result. An inquest was held, and the jury returned the following verdict: "Died from syncope during the administration of nitrous oxide gas for the extraction of teeth whilst labouring under fatty degeneration of the heart."

PROFESSOR JOHN WOOD.

THE students of King's College Hospital assembled on the 28th ult. in the great hall of that institution to present the above distinguished surgeon with a testimonial congratulating him on his appointment to the chair of Clinical Surgery in the vacancy occasioned by the decease of Sir William Fergusson, Bart., and expressing a hope that he would not entirely cease from lecturing on Systematic Surgery, that future students might enjoy the advantage of that instruction by which they had so largely benefited. Professor Wood briefly replied, stating how peculiarly gratifying to him was the address from students whom he had always looked on as his personal friends. For reasons to which he need not particularly allude, they would, he hoped, excuse him from referring to passing events, as it was possible too much importance might be attached to any observations just then uttered by him, but he was deeply touched by the kind and spontaneous expression of their sympathy.

Professor Wood, who is a member of the Board of Examiners of the Royal College of Surgeons, was admitted a Member of that institution July 30th, 1849, and a Fellow by examination May 11th, 1854.

ACIDITY OF THE GASTRIC JUICE.

AT the séance of the Académie des Sciences de Paris (Mars 5, 1877), M. Richet submitted the results of his researches on the acidity of the gastric juice in man, and of his observations on gastric digestion, made on a case of gastric fistula. M. Richet has found that the mean acidity of the gastric juice, whether pure or mixed with food, amounted to about 1·7 grammes in 1000 grammes of liquid. The quantity of fluid in the stomach has no influence on its acidity, which is almost invariable. Wine and alcohol augment the acidity of the stomach, whilst cane sugar diminishes it. The maximum acidity of gastric juice is attained during digestion. The sensation of hunger is not dependent either on the state of acidity or on the condition of emptiness of the stomach.

THE BEARING-REIN.

ATTENTION was prominently directed to the needless and heartless cruelty of the bearing-rein twenty years ago, we believe by the humane though eccentric efforts of Mr. Webb, a well-known member of the Society of Friends, at Bristol. This gentleman, whose whole life was given up to acts of charity, devoted a portion of his time to distributing a printed handbill among coachmen and horse proprietors, and in a suasive way of his own used to loose the rein from the hook on any horse so harnessed he chanced to see standing in the street. This act was followed by an explanatory remonstrance, which never gave offence, and frequently led to the abandonment of the instrument of torture. The bearing-rein would be less commonly used if it were more generally recognised as a device for giving underbred animals an appearance which nature has not bestowed. High-class horses do not need to have their heads held up in this fashion, and in proportion as the rein is effectual it causes pain and spoils temper. A very small acquaintance with the anatomy of the horse, and the part the head plays in balancing and controlling the movements of the shoulder and leg, must convince anyone that to tie up the neck is to deprive the animal of his power of steady and safe progress, besides, to the eye of a judge, destroying the effect of natural grace and bearing.

NATURAL SCIENCE AT CAMBRIDGE.

ONE or more scholarships in Natural Science will be offered by Downing College during the present year. These scholarships range in value from £40 to £70 per annum, and are tenable for two years, or until the holder is elected to a Foundation Scholarship. The examination will be held in Downing College on the 5th of June and the three following days. The subjects of examination will be—(1) Chemistry, theoretical and practical; (2) Physics; (3) Comparative Anatomy; and (4) Physiology. All persons are eligible to these scholarships who have not commenced to reside in the University.

ANOTHER MURDER IN A CELL.

THE folly and, we will not scruple to say carelessness, of placing excited criminals in the same cell has been repeated, and murder has been the result. This time the offence against common sense was committed at Edinburgh, and by the civil authority. Once more we protest, the custodians of men so thrown together are responsible for what occurs. After what took place on a recent occasion, and the warning given, no excuse can be offered. A peremptory order should be issued interdicting a practice which executive local officials have not, it seems, the common sense to abandon except under compulsion. Those who lock up infuriated prisoners together in the same cell are morally, and should be held legally, responsible for what may ensue.

STATUE TO LIEBIG.

FOR some time past a movement has been on foot in Munich to raise a statue to Liebig in that city, and a committee has been formed to receive subscriptions. The total amount received up to the 1st January of the present year amounts to 175,000 francs (£7000), a very large portion of which has been contributed by Russia.

"FITS OF DEPRESSION."

A MAN subject to fits of depression declares his intention of throwing himself from a bridge. His friends first deride the threat, then apply to the police. Two constables refuse to interfere. The would-be suicide is left to his fate, and, perhaps with morbid resolution confirmed by the exposure of his intent, he carries out his purpose and dies. Is anyone to blame? The coroner's jury censure the police and friends. We think censure would deservedly fall upon the intimates of a poor fellow who is known to have "fits of depression," but is allowed to track his perilous path unhelped and unprotected. Cases are, unhappily, exceedingly common in which it is no one's business to interfere.

TWICE HANGED.

THE only sentence of death known to the law is, we believe, a decree which dooms the culprit to be hanged by the neck until he is dead, and then buried within the precincts of the gaol. The last clause of the decree was added to check the practice of resuscitating imperfectly strangled prisoners, which was carried on with considerable address when hangings were frequent. We have yet to learn that

the legal sentence covers a double execution; in fact, twice hanging the same offender with an interval of ten minutes, as the sentence of the law was performed at Bradford on Tuesday last. The public sense of humanity revolts against an "accident" so horrible. It may well put an end to capital punishment altogether.

IN the month of January seven deaths from puerperal fever occurred in Dundee. It was ascertained, on inquiry, that, with the exception of the first case, which proved fatal on the 5th of the month, all the cases succumbed between the 14th and 29th, and in a period varying from three to ten days after confinement, and that the last six deaths had occurred in the practice of one person, a midwife. On observing the unwonted fatality, she desisted from practice, and the medical officer of health ordered her wearing apparel to be disinfected, and cautioned her against resuming practice for three weeks. The first case was attended by a medical practitioner, and there does not appear to have been any connexion between this and the midwife's six cases.

THE Briton Life Assurance Association, Limited, held its first annual meeting on Wednesday. A statement of accounts and a report were submitted and adopted. It appears that up to the date of the report 1073 proposals, to assure £366,512, had been tendered. Of these, 28, covering £18,605, were declined, 197 were not completed at the time of closing the summary for the report, and in 848 cases policies had been issued assuring £266,951. The annual premiums on new policies amount to £9257 19*s.* 2*d.* Single premiums received in respect of two annuities amounted to £777 18*s.* 6*d.*, making, as total revenue for new business, £10,035 17*s.* 8*d.* The receipts for the year in premiums and interest on investments were £11,449 13*s.* 11*d.*

AN excessively high infantile death-rate prevailed last year at Sedgeley, near Wolverhampton. Dr. Ballenden, medical officer of health, reports that nearly two-thirds of the population died in the period before reaching the age of five years. One chief factor in the mortality is said to be the utter disregard of ventilation in the dwellings, while the want of sufficient nourishing food was the cause of much fatality. A good deal of sickness and misery are also attributed to the depressed state of trade in the district, which is a mining one. Dr. Ballenden's report demands the serious consideration of the local authorities.

THE financial interests of the Royal Albert Asylum for Idiots, Lancaster, have been taken in hand by a Ladies' Association, and their work has been commenced with, as might be expected, considerable success. Many new annual subscriptions have been already obtained, besides a goodly list of donations. At present there are 300 patients in the institution, but there is accommodation available for double that number, and the object of the new movement is to raise funds to enable the Central Committee to bring into use the whole of the resources of the asylum.

OUR spirited and picturesque contemporary *The Graphic* has done good service to the cause of charity, in its own pleasant fashion, by illustrating the scenes presented at the recent opening by the Prince and Princess of Wales of the new wards in Charing-cross Hospital. The number of this attractive weekly for March 31st will afford an agreeable *souvenir* of an occasion upon which the friends of the poor, and many suffering sick and maimed folk, will have cause to look back through long years with pleasure and gratitude.

THE death-rate in Dublin last week reached the very high figure of 40·3 per 1000 annually. With reference to this abnormal mortality the Registrar-General states: "The week was the coldest of the winter; as a consequence deaths of old people and of persons suffering from pulmonary affections were unusually numerous; 73 of the 244 deaths registered being those of persons aged 60 years or upwards. The mortality from diseases of the respiratory organs was excessive at all ages, 66 deaths having been caused by bronchitis.

THE accommodation for sick poor at Hackney would seem to be inadequate, as there have been lately in the workhouse infirmary sixty patients in excess of the number for which the building is certified. Instead of enlarging the premises or providing an additional house, the guardians of the district are contented with asking the Poor-law medical officers not to send into the infirmary any but urgent cases. We think this is a matter respecting which the medical officers may well make a representation.

WE are gratified to learn that in some of the large manufactories in the Midland Counties systematic efforts are being made to improve the condition of the workpeople, by inducing them to observe a few simple rules to secure health, comfort, and cleanliness in workrooms. In the matter of watercloset provision and the disposal of refuse material much reform has already been effected. Improved sanitary arrangements in mills and workshops will prove advantageous to both employers and employed.

A SCHEME is in progress to provide Grange-over-Sands with a better supply of water, the existing provision being quite inadequate to the requirements of the place. Grange is a health resort of increasing popularity. Last year its death-rate was only 13 per 1000, without deducting the mortality of the visitors, many of whom were brought there in the last stage of disease, while a complete immunity from infectious disease was enjoyed.

DR. E. L. JACOBS has been re-appointed Medical Officer of Health for the combined Surrey Sanitary Districts for a period of three years, at an annual salary of £600. There were seven other candidates for the appointment, and the fact of Dr. Jacobs' re-election is presumptive proof that in the past he has performed the duties of the office with zeal and efficiency.

A "Stipendiary Magistrate of Glasgow" has written to say that the "pestilential atmosphere of the central police court" in that city has proved so injurious to a gentleman engaged that it has been found necessary to give him leave of absence for two months. Many of the London law courts are open to the charge of poisoning the officials with vitiated air.

CHATHAM, which for some time suffered rather severely from an epidemic of small-pox, is now quite purged of the disease, and there is not one case at present in the town. At Troy Town, in the neighbouring city of Rochester, a fresh outbreak of small-pox is however reported, while the village of Upnor is also attacked.

IT is expected that the Small-Pox Hospital in Dod-street, Limehouse, will very soon be closed. The transfer of convalescent patients to the hospital has for some time been stopped, and a good deal of the clothing, bedding, and furniture, which had been provided, have been taken to the Fulham and Deptford Hospitals.

A BILL to empower any local authority to purchase or take on lease, lay out, plant, improve, and maintain lands for the purpose of being held as park, public walks, or pleasure grounds in Scotland, has been printed. It bears on the back, among other names, that of Dr. Cameron, the member for Inverness-shire.

A SUM of £5000 has been bequeathed by the late Mr. J. C. Tufnell to University College, London, for the purpose of establishing two scholarships, one in analytical and practical chemistry, the other in general chemistry. The scholarships will be open only to undergraduates of the University.

THE ARCTIC EXPEDITION REPORTS.

IMPORTANT papers, from which we make the following extract, were presented to Parliament on Thursday, the 5th inst.

From Dr. Colan's Report to the Director-General of the Medical Department. Dated H.M.S. "Alert," at Valentia Harbour, October 27th, 1876.

Scurvy broke out in the spring amongst some of the sledge crews. All Commander Markham's men were attacked, five having to be eventually carried on the sledges. One man, George Porter, G.R.M.A., after manfully working as long as he could, had to be carried for a long way, but died ere assistance could be had. The others were helped in by a relief party, for whose aid Lieutenant Parr walked over a very bad road continuously, for nearly forty miles. All Lieutenant Aldrich's men were also attacked more or less severely, and received assistance. While away on his second journey Lieutenant Giffard had two men ill. The other cases took place after the return of men on board. On the Greenland side, Lieutenants Beaumont and Rawson's parties were attacked, and two men of the *Discovery* died, after reaching Polaris Bay. They were James Hand, A.B., and William Paul, A.B.

The men of this ship belonging to Commander Markham's and Lieutenant Parr's parties received most prompt assistance from Dr. Moss, who made use of the medical comforts I despatched with great benefit to the sick ere their return. When brought on board they, with others (including Lieutenant Aldrich's men, who got back later), were carefully treated and looked after, though to treat twenty-seven men at one time, some of them very bad, was not easy in a small ship, and for a time I had heavy work to perform, aided by my colleague. Altogether thirty-eight cases of scurvy came under my care, and all, by God's blessing, recovered. I was enabled to give the worst cases, first and last, forty-five days' fresh meat. This last was aided greatly by the excellent medical comforts and lime-juice at my disposal. A detail of the outbreak, its progress and results, will be found in the Nosological Returns.

The kind and considerate treatment of their men exhibited by the officers in command, and otherwise, of sledge parties is deserving of great commendation, and doubtless greatly served to help forward the work of the medical officers.

I have endeavoured in the Nosological Return for Midsummer Quarter to account for the appearance of scurvy amongst the crew of this ship. The remote cause was, I believe, the absence of fresh vegetable food, though to remedy this, lime-juice was given out under inspection daily, and preserved vegetables were eaten. The want of fresh meat may also, I believe, be accounted a remote cause. The absence of lime-juice and of fresh vegetables or game amongst the extended sledge parties doubtless tended to detrimental results. Any one or more of the following may have acted as a predisposing cause or causes: our long and dark winter; the confinement between decks in a damp atmosphere for the long period I have mentioned; the extreme changes of temperature undergone during the prevalence of the great cold. The exciting cause I can only attribute to the heavy physical work undergone. The passage over the frozen sea was of the heaviest description. Roads had to be made with pickaxes ere the sledges could be drawn through, a mile or a mile and a half made good being considered a good day's work. I believe on the Greenland side also extremely heavy roads were encountered. Robeson Channel was crossed by sledge parties of both ships twenty-two times. I think none but the most carefully selected men could have accomplished what has been done. The sick men of the *Discovery* made a good recovery under the skilful treatment of Staff-Surgeon Belgrave Ninnis, M.D., and Surgeon Richard Coppinger, M.D.

During the autumn sledging from this ship several frost-bites occurred. The snow in places was up to the men's waists, and they were exposed to a good deal of wet. It was found necessary to remove part of the left great toe of Lieutenant May, and of the right of Thomas Oakley, G.R.M.A,, as also the right great toe of James Self, A.B. All made a good recovery, notwithstanding the confinement to which they were subject, and performed excellent service in the spring and summer in sledging.

In a fruitless attempt to communicate with the *Discovery* in March, by means of a dog-sledge, under Sub-Lieutenant Egerton, accompanied by Lieutenant Rawson and Neil C. Petersen, interpreter for the Esquimaux language, the latter was most severely frost-bitten in the hands and feet, besides being prostrated by the cold. The officers, following the medical instructions given them, succeeded in restoring the circulation more than once, but they could not keep up the warmth in the body. They consequently determined to return to the ship, which they did after four days' absence. On examining Petersen, I found the feet frozen and geled, as also the hands and fingers. The lungs were congested. Under careful treatment, circulation was restored in the hands and in the hinder parts of the feet, but the fore parts of the latter were destroyed. As soon as the patient's state of health permitted, I removed by amputation all parts in front of the tarsal bones of both feet. The patient did well for a time, the affected parts assuming a good action; but the confinement, and perhaps want of fresh food—though I gave him all I could, besides any medical comfort necessary—told detrimentally on him, and, notwithstanding every care and attention, he succumbed and died, two months after the receipt of his injuries, from sheer exhaustion, probably partly induced by scorbutic taint.

Independent of the diseases and accidents caused by sledging, the amount of sickness that has taken place on board has been small.

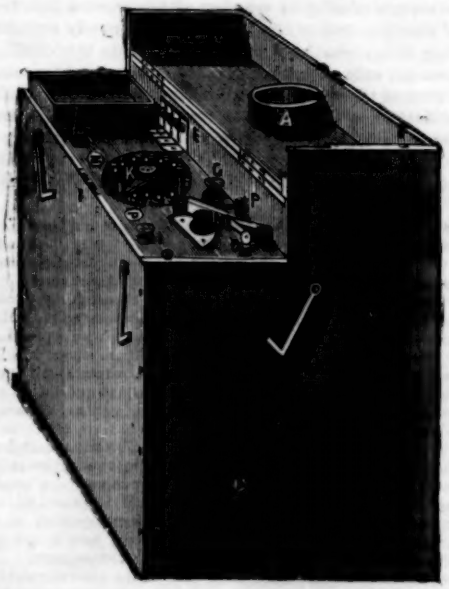
From April 15th to September 1st, 1875, when we entered winter quarters, six admissions to the sick list took place. From the latter date till after the sledges left the ship on April 3rd, 1876, 17 ordinary cases came on—viz., three in September, seven in October, one in November, two in December, two in January, one in February, and one in March. From April 3rd to October 1st (nearly six months) five ordinary cases were admitted. The frost bites numbered on the whole 15, and scurvy 39 cases.

We shall resume the subject next week.

MEDICAL BATTERIES.

MR. HAWKSLEY has submitted to us various electrical instruments constructed from the designs of Dr. Herbert Tibbits. They include voltaic and induction batteries, and an apparatus in which both are united. The latter instrument, which is known as "Tibbits' combined battery," may be recommended as supplying a general want. The electro-motor power is obtained from the well-known Leclanché cells; but it is in the mechanism by which the currents are brought into use and graduated, and in the general accessories, that these batteries chiefly differ from others. The elements and coils are so arranged in a maho-

gany case that either the faradaic or voltaic current may be transmitted from the same terminals without changing the conductors. In the figure the instrument has been placed out of action, the needle of the graduating dial (E E)



standing at zero; and should the operator leave it in any other position, a guard (A) prevents the lid being shut, and his attention will be called to his inadvertence. When the needle covers the stud seen to its right in the figure, and lettered COIL, the induction current alone reaches the terminals (I I); and when it covers any of the other studs, the voltaic current passes from only the number of cells marked upon the stud. The graduator of the induced current (H) and the interrupter of the voltaic current (G) are similar to those usually employed; but a great improvement has been introduced in a commutator (F), indicating at a glance which terminal is for the time positive or negative. The letters N and P, seen through holes in the element board, change as the poles are changed, and render even momentary confusion impossible.

Correspondence.

"Audi alteram partem."

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—The new regulations for [the fellowship to which you take exception in your leading article of to-day are, as you will remember, the outcome of a resolution which I proposed two or three years ago in the Council of the College of Surgeons.

The object of that resolution was to throw open the professional examinations for the fellowship (the existing examinations without any modification or lessening of them) to the members of the College, so that every member of the College might have the opportunity of obtaining the fellowship, provided he could show that he possessed the requisite knowledge, without there being any question as to the curriculum he had followed, or the mode in which he had obtained his knowledge.

My reasons for urging this were, and are, as follows:—

1. I think that the fellowship ought to exert a much wider range of influence than it has hitherto done, or than under the old regulations it could be expected to do—an influence not confined, as it necessarily has been, almost exclusively to students, and to those students who, from the first, are aspirants to the fellowship, who are early trained for it, and whose circumstances enable them to undergo the extended curriculum required, but an influence which should radiate more largely over the members, and especially the younger members, of the College. Without any disparagement of the members, it will be admitted that a stimulus of this kind is needed to induce them to continue the prosecution of their professional education in anything like a definite and systematic manner. Many have the time to do it, but they need the inducement. Few of us can or do persevere in work without some external stimulus. The desire to obtain the fellowship would act as such, and even if it operated upon only a comparatively small number of the members the benefit that would result from inducing them to maintain and advance their knowledge of anatomy, physiology, pathology, and surgery, to take advantage of the museums, schools, hospitals, or unions that may be within their reach, and to study carefully the private cases that fall under their care—to feel, in short, and act as students still, would prove of inestimable advantage to themselves, to surgical science, and to the community. This most beneficial influence which the fellowship might have is, in great measure, indeed almost entirely, prevented by regulations which require two years in hospital and schools and one winter's dissections, in addition to the certificates necessary for the membership, besides the more extended preliminary examination and other things.

2. These regulations would absolutely have prevented myself from becoming a Fellow (Cambridge did not then offer the opportunities which it now does), and they do prevent others who, as in my own case, are compelled, immediately on obtaining the membership, to turn to the means of gaining a livelihood. Owing to peculiar circumstances, I was, at a very early period made a Fellow without examination; and having enjoyed and profited by the privilege for many years, I am desirous that other members should have the opportunity of looking forward to the same honour and influence, provided they can show, which of course I did not, that by continuance in well-doing they have deserved it. I am anxious, therefore, that the members—the younger members more particularly—should have not only the stimulus to the higher scientific and practical education requisite for the F.R.C.S. examination, but also the opportunity of thereby winning the direct and indirect advantages and status of the fellowship, which contribute their share to promote the enjoyment and usefulness of professional life.

3. Hitherto the ranks of the Fellows have been recruited by the statutable election, without examination, to the fellowship of the members who obtained the diploma before 1843. This has served to create and maintain the numerical weight of the elective body of the College, and to connect with it the more eminent surgeons of the country who are of sufficient standing. But this source of supply is fast diminishing, and will soon cease; and if the supply be limited to the twenty or thirty who annually, under the old regulations, pass the examinations, I need scarcely say that the elective body will soon dwindle to a number too small to constitute a fair or sufficient representation of English surgeons. For this reason it is right and prudent, in the interests of the College as well as of its members, that the area of supply should be widened, and that every member who deserves the fellowship should have the opportunity of obtaining it without being debarred by regulations as to curriculum, which many cannot comply with. Till this is so the members of the College will have just ground of complaint that they have not, and cannot obtain, legitimate influence and status in it.

4. A compulsory curriculum may have its advantages in the early periods of professional study; but a member of the College may surely be left to obtain his information where and how he pleases. The smaller and the fewer his opportunities are the greater will be his merit in collecting the amount of knowledge required to face the examinations for the fellowship.

5. There is, be it remembered, no idea of altering the examinations in his behalf. He will be subjected to the same

tests, scientific and practical, as those who follow the old regulations, which are still to remain in force. Instead of the standard being lowered, it is felt by some that the difficulties of the new path will be greater than those of the old, that the effort of retaining anatomical and physiological knowledge till after the membership, or of acquiring it then in sufficient amount to pass the first examination for the fellowship, will more than compensate for the additional preliminary examination and curriculum required of those who, following the old regulations, will be able to present themselves for this examination in the third year of their professional study, and will be required to undergo one examination only in these subjects, instead of two. I think most persons will agree that the two examinations for the membership and the two examinations for the fellowship (these last being both passed after the membership)—which is the ordeal of the new regulations—are, at least, an equivalent to the extra subjects in the preliminary examination and the extra curriculum of study with the two examinations for the fellowship (of which the first can be passed at the end of three years), which is the ordeal of the old regulations. Anyone commencing his professional education would undoubtedly select the latter as the easier route, if his circumstances enabled him to do so. The majority of those who, as students, aspire to the fellowship will fellow this, and in many respects it is the better route. But there are numerous equally deserving students whose circumstances do not admit of this more expensive course, or who, for various reasons, are unable to follow it, who would, nevertheless, do honour to the fellowship, and who ought to have the opportunity of presenting themselves for the examinations.

6. True, members of eight years' standing are already admissible to the fellowship examinations, and the principle for which I am contending has to this extent been conceded. The concession, however, has not been sufficiently liberal to be of much value. Members actively engaged in the practice of their profession—as after eight years they are or ought to be—can scarcely be expected to keep pace with or to overtake the quickly advancing tide of physiological and pathological knowledge in such a manner as to justify them in incurring the risk of the examination. Moreover, they are by that time, for the most part, fixed in their respective positions, and one of the advantages which the fellowship affords to the younger men—viz., that of shaping their course in life, and enabling them to compete with better prospect for the more desirable posts—has for them ceased to exist. The new regulations meet this, to some extent, by enabling the members to present themselves for the examinations at an earlier period, when time for study is more at their disposal, when study of this kind is more beneficial, when aptitude for the ordeal of examination is greater, and when the inducements to come forward are stronger.

It was a keen perception of the difficulties which the members of the College have in obtaining the fellowship—a feeling that those difficulties will not be sufficiently lessened by the new regulations to which I have referred, and which, as I have pointed out, will make the route no easier than the old regulations—a feeling that some additional provision should be made for the admission of a larger number of the members to the fellowship, and that the fellowship would be elevated and strengthened rather than degraded and weakened thereby—which induced some members of the Council who had seriously considered the subject to propose a modification of the examination for members of the College of more than ten years' standing. That proposal has been withdrawn in deference to the strong expression of feeling against it on the part of the fellows. The present is a question, not of altering the professional examinations, but the curriculum, in the case of members who wish to present themselves for the examinations, so as to enable those who can show that they have the required knowledge to reap the advantage of it.

I am, Sir, yours obediently,

Cambridge, March 31st, 1877. G. M. HUMPHRY.

To the Editor of THE LANCET.

SIR,—As you have allowed several possessing the F.R.C.S. qualification to occupy your columns, perhaps you will not refuse to insert a few lines from a M.R.C.S. respecting the new regulations for the Fellowship examinations, especially as it may present a view of a large and not uninfluential portion of the College of Surgeons, who are rather habitually overlooked.

The clauses relating to members of ten or more than ten years' standing having been rejected, there surely remains nothing which can be considered unjust to the existing Fellows, but only an act of justice to those members who, from want of time or money, have been compelled to obtain a qualification at the end of the four years, but who nevertheless are anxious not only to maintain their knowledge, but to improve and enlarge it, and occupy the best posts in the profession, if hard and continuous work can accomplish this.

I wish particularly to call attention to a leader which appeared in your last issue, where it is contended that it is very unjust to make no distinction between members and non-members. The difficulty here is easily overcome by allowing students to offer themselves for the first examination at the end of their second year, as suggested by Mr. Godlee. Anyone who has seen the careless way in which many are signed up for their third year's dissection will feel assured that a mere adhesion to such a rule can be of no possible service except to make the unfortunate student attempt too much work in a limited time, and so probably fail altogether.

It is surely a startling statement to read that a member of the College at twenty-five can obtain the fellowship without having served as an in-patient dresser to a recognised hospital, when such an appointment is essential to the membership, a special certificate being required, and, moreover, the fact of such a one passing would surely reflect deserved and lasting discredit on his examiners.

The fact that a man at nineteen can obtain the fellowship at twenty-five after six years' work, whereas one entering at seventeen must pass eight years, is simply due to the present regulations, and is well known to both parties at starting, and therefore cannot be urged as a very serious injustice, and such an argument being necessary is, to my mind, a confession of inherent weakness.

The whole question seems to rest on this—as to whether the examinations are a sufficient test of a candidate's fitness for a certain diploma; if so (and certainly no one seems to doubt their severity), then surely a man's passing will completely refute the statement that the character of candidates presenting themselves will fall off when the examiners have the remedy in their own hands. Surely, again, the diploma depends for its value on the examination, and not on any mere empty adhesion to routine, even although it be time-honoured. This six years' curriculum, in the sense of being devoted to special studies, is in a great many cases a mere name, depending rather on the possession of money than brains, and it is scarcely fair that the former should have all the advantages. The very fact of a man presenting himself for such an ordeal at once proves that he possesses at least energy, determination, and perseverance, and these are not likely to lead to deterioration.

In all cases the good man will triumph and come to the front in spite of all difficulties, but it is scarcely worth while to increase these in order that a young gentleman entering at seventeen may not have to wait two years longer than another entering at nineteen—such being easily remedied by not fixing any age. At present any member of eight years' standing may offer himself for the Fellowship examinations, and the new regulations merely cut this down, and rightly, for it is a positive injustice, as by that time a man is probably in practice, and cannot possibly afford the time to work up his anatomy and physiology.

In conclusion, I am equally anxious with yourself to maintain the high character of the fellowship; this is, indeed, the reason we are anxious to obtain it—a thing not being coveted unless valued. Let the examinations be the criterion both as to fitness and as to the value of the diploma; only let us have a fair field, and if we can successfully surmount these tests, do not let us be hampered with more regulations, which are restrictive without being efficient.

I am, Sir, yours obediently,

Colchester, March 31st, 1877. M. G. BIGGS.

THE MORBID CHANGES IN CHRONIC BRIGHT'S DISEASE.

To the Editor of THE LANCET.

SIR,—A drawing of the fundus oculi in Bright's disease, which I showed at the meeting of the Pathological Society on the 20th ult., is erroneously described in your report of the meeting. Mr. Higgens has based on that report a criticism of my remarks, and I shall be glad, therefore, to correct the mistake.

The drawing was not one "in which white threads were depicted on the sides of the arteries." Three of the primary branches of the retinal artery were connected, each by a broad band of white tissue, which extended, on two of the vessels, for a considerable distance from the disc. The band was about the same width as the normal artery. It was interrupted here and there, and ended suddenly, and, in the intervals and at its termination, the artery was quite normal in appearance. One artery so changed passed beneath, another over, a vein, without the vein being implicated. Another artery, which was normal at its origin, presented, a considerable distance from the disc, a similar change for a short extent; but the white band here was narrower than the normal vessel, and just behind this part the artery presented two small aneurisms. The retina presented other appearances of ordinary albuminuric retinitis.

The condition was thus distinctly one of periarterial change, hypothetically "fibrosis," and may be regarded, from its associations, as the consequence of the advanced renal disease from which the patient was suffering.

Most persons who use the ophthalmoscope are, I suppose, familiar with the change to which Mr. Higgens alludes, both as a physiological condition and also as, in some cases, unquestionably the result of disease.

I am, Sir, your obedient servant,

April 2nd, 1877. W. R. GOWERS.

BIRMINGHAM.

(From our own Correspondent.)

THE annual meeting of the governors of the Queen's Hospital, held last Monday under the presidency of Lord Leigh, was more than usually interesting, owing to the fact that the committee for the first time had an opportunity of reporting on the working of the "free system" which was adopted at this hospital, with considerable doubts and misgivings, at the beginning of the year 1876. The ordinary income in 1875 was £5817; in 1876 it amounted to £7137, showing an increase of £1319; while from legacies there was an increase of £880, and from donations and benefactions of £548. The total expenditure in 1876, owing to greater economy in administration—for the number of in-patients had increased,—was £8761, being £1221 less than that of 1875. The committee have just cause to congratulate themselves on this state of things, and with remarkably good taste they state that "the great change of system had given them but little, if any, extra trouble and anxiety, and they attributed this to the zeal and fidelity of the officers of the institution, upon whom, in the treatment and nursing of the patients and in the control and management of the house, they had had to rely. They wished in particular to speak in the most grateful terms of the support and help to a good understanding they had derived from the medical committee."

The "free system" has also, according to the medical report, "proved in many respects a great success. The cases admitted into the hospital have been more numerous and more urgent, and yet the average time of detention in the hospital has been shorter;" and the medical staff in conclusion express their intention of giving a loyal and thorough trial to the new system. With such accord between the governing body and the medical staff, the free system may be carried out in almost any hospital, and is almost sure to meet with approbation from the public, and to prove a great success.

A public inquiry has been held at the Guildhall, Walsall, by Colonel P. Cox, C.E., as to the proposal on the part of the Town Council to apply the Artisans and Labourers' Dwellings Act to a part of the town which, according to the evidence of Dr. Maclachlan, the medical officer of health, stands in urgent need of sanitary improvement. Three-fourths of the 110 dwelling houses which it is proposed to pull down are, according to his account, unfit for habitation, and the death-rate in the houses in question is about 40 per 1000. The inspector obtained in all probability sufficient evidence to justify him in supporting the application of the Act to the town of Walsall, and it would be gratifying to hear of its being soon carried into effect.

The annual meeting of the National Medical Association for the Repeal of the Contagious Diseases Acts was held on March 28th, under the presidency of Dr. Nevins, of Liverpool, and the attendance of the medical profession of the town was invited. Discussion as to the future policy and work of the Association and on the medical aspect of the question at issue took place, but the meeting evoked little interest, and very few members of the profession in Birmingham attended the meetings, and still fewer took any part in the proceedings, or gave any encouragement whatever to the society in question.

The West Bromwich guardians have been for some time in the habit of allowing the authorities of Queen's College to have the bodies of unclaimed paupers for the purposes of dissection, but some over-sensitive members of that body have foolishly conceived an objection to this course being continued. The common sense of the majority of the members has, however prevailed, and the sentimental aspirations of these objectors have met with the fate they justly merited.

Birmingham, March 31st, 1877.

PARIS.

(From our own Correspondent.)

HEALTH OF THE FRENCH PREMIER AND OTHER PERSONAGES.

SOME exaggerated rumours have been lately current touching the health of the French Premier. It was said that his health was very much broken down, and that he had had a fainting fit, which had lasted very long and had proved exceedingly alarming. The fact is that Monsieur Jules Simon has merely been suffering from symptoms of temporary fatigue and anæmia. The arduous and responsible duties which he has recently had to perform, under very delicate and trying circumstances, produced a general condition of physiological depression, which manifested itself in various ways. One of the symptoms of this state was the supervention of a bad whitlow on one of the fingers of the right hand, which caused severe pain and necessitated an operation. The health of the Premier is now fully restored. At his reception last week at the Ministry of the Interior he showed me his finger, which was quite healed, and gave me the best assurances touching his general health. He has regained his usual liveliness and cheerfulness of manner, and is making preparations to pass a fortnight at Venice for rest and change of air.

The convalescence of Marshal Canrobert, whose illness I mentioned in my last letter, has been interrupted by a slight return of the gouty attack in an arm. He is otherwise doing better.

The brother of the Maréchal de MacMahon, the Duke de Castries, has been recently so very ill as to give the most serious anxiety to his sister and family. He is a sufferer from valvular affection of the heart, and the dropsy and other complications were lately very severe, but have since subsided.

DEATH OF DR. ROUDIL.

The head-physician to the Paris Prefecture de Police, Dr. Roudil, was buried yesterday. The Prefect of Police and several of the municipal authorities were present at the funeral. Dr. Roudil, who was most highly esteemed, had formerly occupied an eminent post as surgeon in the army, from which he retired to be appointed to the Police Prefecture.

MEETING OF THE CLINICAL SOCIETY OF PARIS.

At the last meeting of the Clinical Society, which took place on Wednesday last, under the presidency of Professor Peter, several important papers were read. M. Quinquand

made a very interesting communication on a case of Meningitis observed in the hospital. M. Bide read a paper on Intestinal Obstruction; and M. Cartay one on Ulcers in cases of Albuminuria. The main communication was, however, that from Dr. Cardiat, which gave rise to a very lively discussion. Dr. Cardiat had produced two interesting specimens, and related various observations to show that there existed a special sort of rheumatic lesion in bones. The lesion, he said, was regular inflammation, with the classical signs of redness, swelling, pain, &c. It might affect the middle of a bone or part of an articular process. It was evidently connected with a rheumatic diathesis, and had been observed by him in patients where it was absolutely impossible to admit the existence of scrofula, or any other diathesis. These views were combated by Dr. Féréol, who thought he recognised in Dr. Cadiat's description the hypertropic form of osseous lesions described by Adams; by Dr. Ledentu, who thought there was nothing very special in these lesions; and by Dr. Panas, of Lariboisière, who thought that they simply formed part and parcel of the great type known by the name of deforming arthritis.

THE CHAIR OF MENTAL MEDICINE.

The Professors of the Paris School of Medicine have at last decided to make choice of a candidate for the newly created chair of Mental Medicine. Dr. Ball stands at the head of the list with seventeen votes, whilst Dr. Magnan comes next with eleven. This list is simply to be presented for consideration to the Minister of Public Instruction, with whom the right of nomination rests exclusively, but it is almost certain that the Minister will ratify the choice of the Professors, and Dr. Ball will be appointed.

SALICYLIC ACID IN TYPHOID FEVER.

Dr. Noel Guéneau de Mussy has made some valuable therapeutical trials of salicylic acid during the recent epidemic of typhoid fever. He has often, he says, seen the use of only one drachm of the drug produce a marked decrease of the fever. In all his cases the employment of the acid had a lowering effect on the temperature.

PROFESSOR PETER'S INAUGURAL ADDRESS AT THE SCHOOL OF MEDICINE.

As I mentioned in my last letter, the opening lecture of Professor Peter in his chair of Medical Pathology was a very great success. The large amphitheatre of the School of Medicine was crammed to overflowing with the students and medical men of the city, who had gathered through curiosity to hear the new Professor and through sympathy with him. The newly named Professor is not only considered one of the most able and original thinkers, writers, and orators of the present School of Medicine, but he is greatly liked for his courteous manner and his sterling qualities of heart. Dr. Peter is a self-made man. He was early deprived of his father, and, without a fortune, obliged to gain his livelihood as a Press corrector. He devoted himself to medicine, and, by dint of hard work, energy, and brains, he has paved his way up to the eminent post which he now occupies. He is not only the eminent medical observer and clinician which we all know, but one of the most varied and cultivated "minds" of the profession in France. He is versed in philosophy, history, and literature, and is acquainted with all the foreign languages, and especially English. His conversation is rich in anecdote and thought, and, like his writings, bears the stamp of his refined and cultivated intellect.

Professor Peter had chosen for the subject of his inaugural lecture one which he was most able to handle, the Rise and Progress of Medicine. Briefly, and yet in a vivid and elegant style, he traced the advance of medicine both as a science and as a social status. On concluding he insisted on the duties of the medical man. He showed what social standing and consideration the medical man had gained, as represented in the difference between the Doctor of Lesage and Molière, and the Doctor of Balzac and Goethe. "But," said he, "as the part of the medical man in modern society had become so highly important, as his intervention was indispensable in questions of public health, public assistance, forensic medicine, &c., so, in face of the social duties he had now to perform, the medical man should feel penetrated with the desire to work, to study, and to learn, so as to be worthy of the part which was assigned to him."

Paris, March 27th, 1877.

Obituary.

PETER MARSHALL, F.R.C.S.

The death of Mr. Peter Marshall, which occurred in the evening of the 12th ult., removes from the profession one of the last remaining links of a generation of medical practitioners which is now fast passing away. Twenty years ago few men in general practice in London were better known or more respected than Mr. Peter Marshall. He enjoyed a large share of public confidence and the affection and esteem of his professional brethren. He was at that time an active member of the Medical Society of London and of many other kindred societies. It was his delight to join in the social scientific life of London activity; and if it cannot be said that his mind was original in its workings, it can most truthfully be said that few men more keenly appreciated and recognised original work wherever it was presented to his view.

Mr. Marshall was born on the 8th of March, 1809, we believe, in Aberdeen. He came early to London, and followed his studies at the Great Windmill-street School of Medicine. He had for his masters the Graingers, and we heard him once say that he had some instruction from Joshua Brookes, the once great anatomist, whose school in Blenheim-street is now a dyer's factory. In 1828 he passed for the membership of the Royal College of Surgeons, and in 1832 he took the licence of the Apothecaries' Society, and soon afterwards settled in practice in Greek-street, Soho, where he lived until the last few years of his life, when he moved into Bedford-square, remaining there so long as his residence in London continued.

When anæsthesia came to the front in 1846, Mr. Marshall took a very active part in experimental research on that great subject. He was a close friend of Dr. John Snow, and assisted that most indefatigable investigator in many of his researches. This led Mr. Marshall to become an administrator of anæsthetics, and he performed for many years at the Charing-cross Hospital the duties of administrator. In connexion with this work he published a useful and practical paper entitled "Experiences with the Bichloride of Methylene." In scientific debate Mr. Marshall was quiet, courteous, earnest, his only fault a nervous anxiety that sometimes conveyed the idea of indecision, which often did not really exist, but which no doubt took away some of the force necessary to make a successful debater. But he was always respected and beloved, and when, in the year 1869, the Medical Society of London elected him its President, the honour fell on one who had not only earned it by good service, but who knew how to prove that he could wear it with credit to himself and usefulness to the body of which he was, for the time, the chief.

For some years before his death Mr. Marshall was in feeble health, and at last was obliged to retire from the active duties of professional life. He was elected F.R.C.S. in 1870, but soon afterwards left London and took up his residence at East Cowes Park, in the Isle of Wight. For some time his general health improved by the change to a certain extent, but the affection of the heart and aorta from which he suffered remained, and he finally sank from bronchitis and congestion of the lungs. He was attended by Mr. Jones, of West Cowes, who had for a long period done all that brotherly care and professional skill could do. At the time of his death Mr. Marshall was sixty-eight years of age. For twenty-seven years out of that period we can speak of him as we knew him,—a student always, a warm-hearted, conscientious representative of the healing art, a faithful friend.

JOHN ROBERT EDE, M.D., F.R.C.S.

Dr. Ede was born at Liskeard, Cornwall, where he served his time, and afterwards came to London and studied at University College Hospital under Liston. He was intended for the navy, but, finding he was past the age, decided on settling in practice in Islington, where he practised for thirty-five years. He held several public appointments

during that time, particularly that of parochial surgeon to St. Mary's, Islington, in which office his duties latterly were very arduous. He was stricken down while engaged in them by an attack of apoplexy. It was then thought necessary that Dr. Ede should retire from active life, which he did in October, 1875, but did not long enjoy his retirement. His health being completely shattered, he sank to rest on the 24th of March, 1877, and was buried at Christchurch, Bexley-heath, Kent.

Dr. Ede's death will be greatly regretted not only by a large circle of old patients, both rich and poor, to whom he was endeared by many years of professional service, but also by a considerable circle of professional friends. He was a good practitioner. The field of practice enjoyed in his public appointments, and especially in that of medical officer to the Islington Workhouse, was large and various. And it was fully appreciated by Dr. Ede, who did many good and creditable acts of surgery, including the successful ligature of the external iliac artery, of which he gave an account in THE LANCET of 1858. When he felt it necessary to retire he did so with expressions of the highest respect from the guardians and from the local press. The guardians recommended to the Local Government Board that he should have the highest superannuation allowance permitted by the law, which he had certainly earned by twenty-seven years of close and effective duty. The love of work survived his power of working, and this was a trial to him; but, like his other trials, it was borne meekly and patiently.

WILLIAM CARR, F.R.C.S.

MR. CARR, of Blackheath, whose lamented death we recorded last week, had a large and lucrative practice, to which he devoted great energy. When a student he worked hard to fit himself for the responsible duties of medical practice, and in after-life embraced every opportunity of increasing his competency to alleviate human suffering. As a practitioner he was careful and painstaking, accurate in diagnosis, and skilful in the management of his patients. The poor found him as attentive and ready to help them as did the rich, and, preferring duty to his own personal comfort, he laid himself out to work thoroughly. His patients were his friends, and they found in him a counsellor whose advice was sought on all occasions and subjects. When the Duke of Connaught resided at Blackheath, Mr. Carr was honoured by being appointed his private physician, and after a severe illness of the Prince, the Queen sent an autograph letter to the Doctor, thanking him for his kindness and attention to her son.

Mr. Carr was greatly interested in medical education, and medical students found in him a trusty adviser, encouraging them in their studies, and rejoicing in their successes. His energy was especially evidenced by the deep interest he took in the affairs of the Royal Medical Benevolent College at Epsom. For many years he laboured hard to support this worthy institution; and he collected more than two thousand pounds to found scholarships for its pupils at University College Hospital. He was a great lover of flowers, and was rarely, if ever, to be seen without a bouquet in his button-hole. He was a botanist, and greatly interested in diffusing knowledge amongst gardeners; for this purpose he delivered lectures on botany in the Working Men's Institute; he was also president of the Horticultural Society. He was a Conservative and a Churchman; a man of strong religious faith, but one who strove to make his outward life an embodiment of his inward conviction, and he did not strive in vain.

In 1865, when the cases, now almost forgotten, of Gibson and Daly were exciting the public indignation against the state of the Metropolitan Workhouse Infirmaries, Mr. Carr was appointed by Mr. Farnall (the Inspector of the Poor-law Board, who conducted the inquiry) as his Medical Assessor. Shortly afterwards he was associated with the late Dr. Anstie and others as one of the THE LANCET Commission for inquiry into the state of the Infirmaries. It was greatly due to the astounding revelations made by those gentlemen, in their able and laborious report, that the present amelioration of the lot of the aged and sick poor of the London workhouses was made.

Mr. Carr was widely known in the profession, and as generally respected. His loss will be greatly felt; he ennobled his profession, and could ill be spared. The sorrowing crowd which met around his grave testified to the respect and love in which he was held by all classes at Blackheath.

ORLANDO HAVILAND, M.R.C.S.

WE have to record the death of Mr. Orlando Haviland, surgeon, Bridgewater, after a short illness, at the early age of forty-nine years. Mr. Haviland was the youngest son of the late James Haviland, Esq., surgeon and magistrate for the borough of Bridgewater. He formerly practised in Kent, but, on the decease of his father in 1869, he succeeded to his brother Alfred's share of the old family practice. His great professional knowledge and skill, his untiring energy, his geniality and impartial devotion to his patients, whether rich or poor, endeared him to all who knew him, both in Kent and Somerset. Mr. Haviland leaves a wife and six children to deplore his loss, besides a wide circle of friends and patients.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on March 29th:—

Emmerson, John Bolton, Jarrow Hospital.
Clifton, Cyrus Arthur, Northampton.
Willcocks, Frederick, Scarsdale Villa, Kensington.
Callender, John Hawkes, South Shields.
Culpin, Millin, Mildmay-park.
Revell, Richard Carter, Saltash, Cornwall.
Welchman, Henry Palmer, Bore-street, Lichfield.
Whitcombe, William Philip, Birmingham.
Rochfort, Walter Mingay, Leamington-terrace, Acton.
Byers, Decimus William, Hornsey-street, Holloway.

The following gentlemen also passed the Primary Professional Examination:—

Alfred James Bisdee, St. Mary's Hospital; Walter Hewitt, General Hospital, Birmingham; Horace Edward Ambler, Middlesex Hospital; William Johnson, St. Bartholomew's Hospital.

DR. ALFRED J. HARRISON has been placed on the Commission of the Peace for Walsall.

THE Servian Government has conferred the Gold Cross of the Takovo on Dr. George H. Lamson, late chief of the Military Hospital.

DR. T. GURNEY, the Senior Physician to the City Dispensary, was on the 29th ult. presented with an illuminated address and a handsome timepiece, by the poor patients under his care, as a recognition of his kindness to them for years past.

AT a special meeting of the Oxford Town Council, Mr. E. L. Hussey, surgeon, of that city, was unanimously elected coroner, in the place of Mr. W. Brunner, deceased. Mr. Hussey, before his election, retired from the Town Council, of which he was a member, and paid the usual fine of £20.

THE Court "Cheddar Valley," of the Ancient Order of Foresters, have presented Mr. Reginald Wade, their medical officer, with an elegant walnut inkstand, upon his resigning, on being appointed medical officer for the Burnham District of the Axbridge Union. A plate was affixed to it containing the following inscription:—"Mr. R. Wade, from Court Cheddar Valley, 5512, for his uniform kindness as Surgeon to its members. March, 1877."

VACCINATION GRANT.—Mr. G. K. Sproule, of Frome, has received from the Local Government Board the sum of £13 16s. as a gratuity for efficient vaccination in his district.

RICHMOND (YORKSHIRE) COTTAGE HOSPITAL.—This institution, which has been erected at the sole expense of Mrs. Brown-Simpson, is now complete and ready for occupation. An inscription, acknowledging the munificence of the donor, has been affixed to the building.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—It is stated that 90 out of the 300 candidates at the last preliminary examination for the diploma of Fellow and Member of the College were unsuccessful. For the primary examination in Anatomy and Physiology, which commences this day (Friday) there are nearly 200 candidates.

BOOKS ETC. RECEIVED.

Transactions of the Odontological Society of Great Britain. March.
Quarterly Journal of Microscopical Science. April.
Dr. J. H. Evatt: The Cause of Drunkenness in our Army.
Dr. O. A. White on Yellow Fever as it appeared in Savannah in 1876.
British and Foreign Medico-Chirurgical Review. April.
J. A. Froude: Short Studies on Great Subjects.
Dr. L. Hermann on Vivisection (Transactions of the American Neurological Association for 1875).
W. W. Capes: University Life in Ancient Athens.
The Journal of Anatomy and Physiology. April.
Dr. Gurney on Cancers and Tumours.
The Sunday Magazine. April.
Good Words. April.
Sunday at Home. April.
The Leisure Hour. April.
Drs. T. R. Lewis and D. D. Cunningham on Leprosy in India and the Oriental Sore.
R. O. Cowling on the Relations of Medicine to Modern Unbelief.
British Journal of Dental Science. March.
H. C. Bowen: Macaulay's Lord Clive.
C. W. Cox: School History of Greece.
Dr. D. Cullen on Typhoid Fever.
W. Turner: Introduction to Human Anatomy. Part II.
Cassell's History of India. Part XVI.
J. Parkin on Gout.
Transactions of the New York Pathological Society. Vol. I.
Dr. J. Cockle on Surgical Treatment of Aortic Aneurism.
The Popular Science Monthly. April.
Dr. W. Macgregor on a New Form of Paralytic Disease.
R. S. Holden: Hints on Health.

Medical Appointments.

ALLEN, Mr. A. H., Public Analyst for Sheffield and North Derbyshire, has been appointed Analyst for the West Riding of Yorkshire, at a salary of £250 per annum, and 6s. for each analysis.

ALLEN, J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health of the Belper Sub-district of the Belper Rural Sanitary District, at £100 per annum instead of £150.

ANDERSON, W., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Irvine, Ayrshire, vice Watson, resigned.

BARNES, G., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Chard Rural Sanitary District, at £100 per annum instead of £200.

BLACK, D., M.B., has been appointed Medical Officer and Public Vaccinator for the Parish of South Uist, vice Nicoll, deceased.

BRENNAN, J., L.R.C.S.I., L.K.Q.C.P.I. & L.M., has been appointed Medical Officer, Public Vaccinator, &c., for the Louisburgh No. 1 Dispensary District of the Westport Union, co. Mayo, and Medical Attendant to the Royal Irish Constabulary, vice Keays, resigned.

BROWN, Mr. W. H., has been appointed a Resident Assistant Medical Officer to the General Infirmary, Leeds, vice Lapage, resigned.

CARTER, F. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 2 or Milton District of the Pewsey Union, Wilts, vice Barrett, resigned.

CHESSEWRIGHT, J. F., M.R.C.S.E., has been reappointed Medical Officer of Health for Guisborough, Yorkshire.

CLARK, W. W., M.D., has been reappointed Medical Officer of Health for the Wellingborough Urban Sanitary District.

COATES, F. W., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Salisbury Police Force, vice Winzar, deceased.

DRANE, R. E., L.R.C.P.Ed. & L.M., L.S.A.L., has been appointed Medical Officer of Health for the Liversedge Urban Sanitary District, vice Sykes, resigned. £30 per annum.

FLETCHER, C. W. C., M.R.C.S., has been appointed Assistant House-Surgeon to the Ingham Infirmary and South Shields and Westoe Dispensary.

GAYLOR, E., M.R.C.P.Ed., L.F.P.S.G., has been reappointed Medical Officer of Health for the Wirksworth Sub-district of the Belper Rural Sanitary District, at £100 per annum instead of £150.

GOWING, B. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 4 District and the Workhouse of the Alderbury Union, Wilts, vice Roberts, resigned.

JAMESON, L. S., M.B., B.S., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to University College Hospital, vice Crocker, whose appointment has expired.

LEVINGE, R. G., A.B., M.B., L.R.C.S.I., has been appointed Assistant Medical Superintendent of the Bristol Lunatic Asylum, vice De Denne, resigned.

MCKECHNIE, A., M.B., C.M., L.R.C.S.Ed. & L.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Kilvinichen and Kilvickeon, Argyleshire, vice Black, resigned.

PICKUP, W. J., M.R.C.S.E., has been appointed Resident Surgeon to the Portland-town Free Dispensary, vice Grimwood, resigned.

PORTER, J., M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the Urban Sanitary District of Fleetwood-on-Wyre.

PRINGLE, Dr. J., has been appointed Medical Officer and Public Vaccinator for the Half-way District of the Parish of Dundonald, Ayrshire, vice Watson, resigned.

SCOTT, H., M.B., C.M., M.R.C.S., Demonstrator of Anatomy in the University of Edinburgh, has been appointed Professor of Anatomy and Physiology in the University of Otago, New Zealand.

STEELE, H. F., M.R.C.S.E., L.S.A.L., has been appointed Junior House-Surgeon to the Carlisle Dispensary and Fever Hospital, vice Sandes, resigned.

WARNER, F., M.D., M.R.C.P., has been appointed Assistant-Physician to the East London Hospital for Children, Shadwell.

YOUNG, W. C., F.C.S., has been appointed Public Analyst for the Poplar District, vice Anderson, whose appointment had expired, and who did not seek reappointment. £100 for one year.

Births, Marriages, and Deaths.

BIRTHS.

ANDREWS.—On the 23rd ult., at Everleigh, Hampstead, the wife of James Andrews, M.D., of a son.

BONNYMAN.—On the 29th ult., at Upper Phillimore-place, Kensington, the wife of James Bonnyman, M.D., Surgeon-Major, Army Medical Department, prematurely, of a son.

BROWN.—On the 28th ult., at Shifnal, the wife of Joseph L'Oste Brown, L.R.C.P.L., of a daughter.

CLIBBORN.—On the 21st ult., at Kiltegan, co. Wicklow, the wife of Cuthbert J. Clibborn, M.B., of a son.

CRAWFORD.—On the 28th ult., at Tiverton, the wife of Thomas Crawford, M.D., Surgeon-General, Army, of a son.

FENN.—On the 28th ult., at Richmond, Surrey, the wife of Edward L. Fenn, M.D., of a son.

GARDINER.—On the 23rd ult., at Brecon, the wife of Surgeon-Major W. A. Gardiner, of a son.

KEELE.—On the 22nd ult., at St. Paul's-road, Highbury, the wife of George Thomas Keele, M.R.C.S.E., of a son.

MOORE.—On the 22nd ult., at Cavan, the wife of Mark Moore, L.K.Q.C.P.I., of a son.

SMARTT.—On the 22nd ult., at Ballymahon, the wife of F. W. Smartt, M.D., of a daughter.

STOKER.—On the 20th ult., at York-street, Dublin, the wife of William Stoker, F.R.C.S.I., of a son.

WILDE.—On the 21st ult., at York Lodge, Finchley-road, the wife of R. H. Wilde, M.D., of a daughter.

MARRIAGES.

HANSELL—BLAKE.—On the 8th Feb., at St. Jude's, Oudtshoorn, Cape Colony, S. Africa, William Charles Hansell, M.R.C.S., L.S.A., third son of the Rev. P. Hansell, of Kingsdon, Taunton, to Jane, only daughter of Joseph Blake, Esq., of Oudtshoorn. No cards.

TURNER—MORRISS.—On the 4th inst., at All Saint's, West Ham, Essex, by the Rev. R. W. B. Marsh, M.A., Incumbent of Plaistow, Essex, Arthur Turner, Esq., Solicitor, of Ampthill-square, London, to Mary Elizabeth, second daughter of the late Edward J. Morriss, Esq., L.R.C.S.I., L.S.A., of Barking-road, Plaistow, Essex.

DEATHS.

BOXALL.—On the 29th ult., at Wisborough-green, Sussex, Henry Boxall, F.R.C.S.E., aged 60.

BROOKES.—On the 28th ult., at Red Lion-square, Benjamin Brookes, M.R.C.S.E.

BROWN.—On 20th February, 1877 (not the 11th of March, as previously announced), at Anarkalles, Lahore, Punjaub, Mary Caroline, the dearly-loved wife of T. E. Burton Brown, Esq., M.D. Lond., M.R.C.S.E., and fourth daughter of C. J. Hewlett, Esq., of No. 6, Tavistock-place, and Creechurch-lane, City, aged 34 years.

CAPE.—On the 22nd ult., at Curzon-street, Lawson Cape, M.D., aged 69.

COLEMAN.—On the 26th ult., Henry William Alexander Coleman, M.D., of Lutterworth.

CRANKE.—On the 28th ult., at Fountain-street, Ulverston, Emily, the wife of John Cranke, Esq., M.R.C.S.L.

DONALD.—On the 24th ult., at Edinburgh, James Smart Donald, M.B., aged 27.

ENGLAND.—On the 21st ult., at Rathgar-road, Dublin, Richard Arthur England, M.D., aged 66.

FENNELL.—On the 20th ult., at Southampton-street, Bloomsbury-square, Edward Henry Fennell, M.R.C.S.E., aged 57.

HAMILTON.—On the 1st inst., at Highfield North, Rock Ferry, William Thomas Hamilton, L.R.C.S.I., aged 59.

HARRISON.—On the 27th ult., at Manchester, George Morley Harrison, M.R.C.S.E., aged 53.

HENDERSON.—On the 28th ult., at Albemarle-street, Dr. Charles Murray Henderson, late Bengal Medical Service, aged 62.

JACKSON.—On the 14th ult., at Ashover, Derbyshire, William Kaye Jackson, L.S.A.L., aged 63.

KENNEDY.—On the 22nd ult., at Castlegate, Jedburgh, Gilbert Kennedy, Surgeon, aged 70.

KING.—On the 20th ult., at Chepstow, Thomas King, F.R.C.S.E., aged 83.

LENNON.—On the 22nd ult., at Gallowgate, Glasgow, John Luke Irwin Lennon, L.R.C.P.Ed.

NORRIS.—On the 23rd ult., at Oldswinford, Worcestershire, William Norris, M.D., aged 85.

PERCEVAL.—On the 21st ult., at Wilton-terrace, Dublin, Charles Frederick Perceval, F.K.Q.C.P.I., aged 50.

RICHARDS.—On the 14th Feb., at George Town, Demerara, Henry Ebenezer Richards, M.D.

SAYER.—On the 25th ult., at Park-street, Grosvenor-square, Susan Elizabeth, the beloved wife of Charles Wathen Sayer, Surgeon, of Yatton, Somerset. Friends will kindly accept this intimation.

SPURGIN.—On the 12th ult., at Thrapston, Branwhite Spurgin, M.R.C.S.E., aged 72.

STEVENS.—On the 22nd ult., at Slough, Richard Howell Stevens, M.B., aged 31.

STOKES.—On the 23rd Dec., at Singleton, New South Wales, George Patrick Stokes, L.R.C.P.Ed., aged 31.

STRAFFORD.—On the 22nd ult., at Bradley-green, Biddulph, Staffordshire, Thomas Strafford, M.R.C.S., aged 28.

SUTHER.—On the 21st ult., at Southsea, Peter Suther, M.D., Deputy Inspector-General of Hospitals and Fleets, aged 92.

SYMONDS.—On the 28th ult., at Crowland, William Nathaniel Symonds, L.F.P.S.G., aged 38.

THOMAS.—On the 2nd inst., at his residence, Goring-place, Llanelly, Benjamin Thomas, F.R.C.S., in his 63rd year.

TITTERTON.—On the 2nd inst., at Westgate-lodge, Warwick, Henry Titterton, M.D., Surgeon-Major, Army, aged 46.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

DRUNKENNESS IN OUR ARMY, AND THE MODE OF SUPPRESSING IT.

WE have received a pamphlet with the above title, written by Surgeon Evatt, M.D., Army Medical Department, and which was the 1875 Prize Essay of the Soldiers' Total Abstinence Association of India. Dr. Evatt inquires into the causes of drunkenness in the English Army, and suggests means for suppressing it. The following are considered by him to be the prominent causes of the evil:—1. Many of the recruits were drunkards before enlistment. 2. Objectionable canteen rules, beer and rum allowances. 3. Long service, tedium of life, absence of interest or change, idleness. 4. Absence of higher educational arrangements and good schools. 5. Want of change of diet or deficiency of nourishing food. 6. Fanciful climatic and medical theories, encouraging drinking. 7. "Breaking" sergeants to the ranks. 8. Barrack-room chaff and absurd theories of *esprit de corps*. The following are the methods Dr. Evatt thinks likely to check intemperance in the army:—1. Short service and return to civil life. 2. Fuller and higher class education in general subjects in army schools. 3. Free canteens, and abolition of all issues of liquor after fatigues or duties. 4. Total abstinence societies and bands of hope. 5. Good food and change of diet. 6. Soda-water and ice machines. 7. Diffusion by pamphlets and books with true ideas of the use and value of alcoholic liquors. 8. Encouragement of teetotal principles by the officers of the army. 9. By acting on the religious enthusiasm of the men. Dr. Evatt has evidently bestowed much attention on his subject, and his treatise deserves careful consideration. We ourselves are inclined to place "encouragement of teetotal principles by the officers" as the most powerful means which could be applied to the cure of the disease.

Mr. W. H. Bisner.—We never recommend a particular physician or surgeon.

ON CURRENT MEASUREMENTS IN ELECTRO-THERAPEUTICS.

To the Editor of THE LANCET.

SIR,—In commenting on my letter of March 13th, Mr. Mann writes that he will be glad to know how I consider that the use of the galvanometer in electro-therapeutics is likely "sooner or later to end in disaster"; and in agreeing with my statement that the exact strength of current which suffices to produce the required result should not be exceeded, he remarks that this is "just what a galvanometer enables us to accomplish with *unfailing exactitude*." With this latter statement I altogether disagree. A galvanometer may be a measurer of the strength of current flowing from the battery, but it is no accurate gauge of the amount of this current actually administered to the patient; for this will depend largely, as Mr. Mann himself admits, upon the condition of the patient's skin, and, I may also add, upon the kind and shape of the conductor, and its degree of moisture &c.; and the operator will do well to graduate his doses of electricity by a consideration only of the three factors—number of cells, effect upon himself, effect upon his patient. The following results from my use this morning of one of Elliott's tangent galvanometers will illustrate my views. With a current from 15 Leclanché cells applied to the galvanometer terminals by means of sponges well moistened in water, the needle was deflected to 12°. With the same current similarly applied, but the sponges moistened with a saturated solution of salt in water, a deflection of 35° resulted. I then tested a case of facial paralysis with currents from the under-mentioned batteries by means of moistened conductors, the positive pole being held stationary upon the point of exit of the facial nerve from the stylo-mastoid foramen, and the negative applied in succession to the paralysed muscles. The strength of current was that which just sufficed to produce muscular contraction. Applied to my own face, the sensation produced by the four currents was about the same, and my patient, who allowed me to bandage her eyes, was unable to distinguish them.

Battery.	No. of cells.	Result.	Number of degrees of deflection of galvanometer needle.
Leclanché	15 ...	Muscular contraction	30
Muirhead's	20 ...	Ditto	42
Weiss	10 ...	Ditto	30
Gaiffe-Clamond ...	18 ...	Ditto	25

The above table is no test of the strength of the several batteries when freshly charged; for all had been more or less used, and some more than others.

My prophecy of disaster from the adoption of the galvanometer in electro-therapeutics was based upon my knowledge that there is too much tendency already to an almost mechanical use of electricity in medicine, and my belief that the employment of a so-called infallible guide to dosage would make men even more careless than they are at present.

I am loth to take up more of your space; but surely Mr. Mann is in error in saying that "in nervous affections no visible action is produced by electricity"! My experience has been that in fully three-fourths of our cases we use electricity to bring about very visible muscular contraction, and that where we fail to produce this we do little good.

I am, Sir, your obedient servant,

Cavendish-square, W., March 31st, 1877. HERBERT TIBBITS.

M. O. H.—The Sewage Conference of the Society of Arts will, we believe, be held on the 3rd and 4th of next month, under the presidency of Mr. Stansfeld, M.P. Several papers of practical interest are expected to be read, and various sanitary appliances will be brought together for inspection. The particular process referred to by our correspondent may possibly be submitted to discussion.

Dr. Moore will find the case alluded to in our remarks on "The 'Border Line of Insanity'" in the recent Official Report on Scotch Prisons.

DRUG ADULTERATION IN LONDON.

DR. A. DUPRÉ writes to the *Analyst* to say that during the last five years he has carefully examined 165 samples of drugs and medicines, purchased at the better class of chemists' shops in all parts of the metropolis, all, with very few exceptions, having been bought under the Latin name by which they are distinguished in the Pharmacopœia. Out of the 165 samples examined, no less than 71 were found to be adulterated, some to a very considerable extent. Thus, of 6 samples of liquor arsenicalis, not one came up to the standard of strength, one showing a dilution of 60 per cent. Of 6 samples of scammony, all were adulterated; and of 17 samples of ferri et quiniæ citras tested, 11 were found deficient. Dr. Dupré sums up his experience as follows:—Drugs consisting of sugar, well-defined chemical compounds, such as bromide and iodide of potassium, sulphate of quinine, &c., are nearly always found pure. On the other hand, all such as should contain a certain proportion of active ingredients, or should be the more or less altered natural products, are frequently adulterated. Out of 49 samples of the first class, 3 only were found adulterated; whereas out of 116 samples of the second class, 69 were found adulterated. The conviction is forced upon us that there is more adulteration in drugs than in articles of food.

Æsculapius should communicate with the Defence Association directly.

WHY?

To the Editor of THE LANCET.

SIR,—"Why" may in a great measure be very shortly answered thus: Because so many men having the honour to belong to a profession do their very best to lower the dignity of that profession, and make it something inferior to a downright honest trade by tinkering in and dispensing drugs—nay, even keeping open retail shops. How can we hope the profession of medicine to rank alongside of other professions, as it undoubtedly should, while this state of things exists? In the old days, when druggists' shops were few, there might have been some excuse for the custom; but the cases where it is still necessary are few. Take Edinburgh for example. I suppose such a state of things is unknown, as a medical man who so condescended would occupy a sorry position. In Edinburgh a doctor pays his visit, and, like a professional gentleman, writes his prescription, and the people of the house may do what they like with it. He does not cater for patients by what is, to all intents and purposes, underselling the tradesman—i. e., the druggist. At least, it appears to me that supplying physic can arise only from one of two reasons or both: either catering for patients by cheap physic, or scrambling for a few coppers as profit on so many bottles per diem; the pump taking the place of the Irishman's pig, who "payed the rint." Can nothing be done to abolish this degrading custom?

Yours truly,

April, 1877. M.D. UNIV. EDIN.

*** Our correspondent enlarges on the harm done to the profession by practitioners dispensing drugs and even keeping open retail shops. We are not prepared to say that the time has come for general practitioners to entirely give up the dispensing of their own drugs. We wish it had. Chemists, however, are more responsible for this than medical men. But the time has certainly come for medical men to have nothing to do with open shops. It is incongruous for a professional man to trade in drugs, and he cannot do so without running great risk of degrading himself and his profession.—ED. L.

Union District Doctor.—The doctor was not bound to go without any kind of order, or even knowledge (as we suppose) that the man was a pauper. A case of retention of urine is certainly urgent, and we think a medical man should have good reasons for refusing to go to see it, if anything like a claim upon him either as private practitioner or the medical officer of the district can be made out. But we gather that our correspondent had good reasons for declining, and, we repeat, "the medical officer is not bound to attend upon a sick pauper without an order in writing or in print calling upon him to do so." The words quoted are Mr. Lumley's, from his Manual of the Duties of the Medical Officer.

A. O. C.—We have pretty plainly indicated the kind of practice that we think chemists should avoid.

Mr. W. Ryden.—Speaking generally, the rules seem to us to be good.

DEATH CERTIFICATES BY UNQUALIFIED PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—With reference to the letter of "W. J. G." in your last issue, the following facts may be stated:—Medical certificates of the cause of death are not available for the inspection and examination of the public, neither does it appear desirable that they should be. The 35th section of the original Registration Act, 6 and 7 Wm. 4, confers on the public, however, the right to search for and examine any entry in the register of marriages, births, or deaths on the payment of the fee of 1s., and to have a certified copy of such entry for a further fee of 2s. 7d. "W. J. G." can, therefore, search the death register in his district for the fee of 1s., and see for himself how the cause of death of the deceased man in question was described, and whether or not the cause was certified. As the deceased man was attended in his last illness by an unqualified practitioner, the probable cause of death should have been returned in the register without any form of certification. It cannot be too generally known that in the present unsatisfactory state of the law the complete absence of any scientific evidence as to the cause of death is not held to afford any excuse for the non-registration of the death.

Yours faithfully,

April 4th, 1877. N. A. H.

To the Editor of THE LANCET.

SIR,—If your correspondent, "W. J. G.," who desires information on the above subject, will communicate with me, I will direct him how to proceed in the case he mentions.

Yours faithfully,

G. DANFORD THOMAS.

29, St. Mary's-terrace, Paddington, W., March 31st, 1877.

THE FOXHUNTER'S RULE OF LIFE.

IN an interesting article in the *Daily Telegraph*, entitled "With the Pytchley," a "Veteran" records the rule of life by which an old foxhunter attained longevity, and retained the faculty of sport: "I always live well, lie warm, and take plenty of exercise." Adapted to the idiosyncrasy of the subject, this outline of management probably includes the sound principles of self-preservation. To live "well," that is taking a sufficiency of food of suitable quality, and properly cooked, wines well matured and dry, in moderate quantity, to sleep in a well-ventilated room with pure atmosphere, so clothed that the heat generated by the body is neither wasted nor unduly confined while the skin acts freely, and to take plenty of healthful exercise, stopping short of exhausting fatigue, which depresses and depletes,—together these maxims point to a manner of life eminently conducive to strength and endurance. It needs only to add one desideratum, without which the most skilful system and care can scarcely prove successful. The mind, the indicator and governor of the vital principle by which the organism consists, and whence it derives all its energy, must be hale and happy. It is vain to hope for a lengthened and joyous spell of existence if care, like a worm, eats at the core. The zest of life is the secret of its integrity.

Mr. Thos. Davies.—We neither recommend practitioners nor prescribe for patients. Our correspondent should consult his ordinary medical attendant.

INCISING THE PERIOSTEUM.

To the Editor of THE LANCET.

SIR,—Will you allow me the privilege of very briefly citing a few cases to show the benefit derived from a little operation I have lately adopted, and which I have not happened to see advocated in any work I have lighted upon, though, as there is nothing new under the sun, it may be a very old affair. The operation consists in passing a tenotomy knife, with rather a longer shank than ordinarily made, and lateralised, through the skin and underlying tissues down to the periosteum of any bone in an oblique course, then turning the edge of the knife on to that membrane, and making it come in contact with the bone itself by cutting through the periosteum whilst withdrawing the knife.

The cases suitable seem to me to be many—viz., all those in which there is thickening of the periosteum, the result of a somewhat chronic or subacute inflammatory action, specific or otherwise, and in which there is pain or fear of future evil. The bones may be superficial or deep. There is with the pain much tenderness on pressure or muscular action. The relief given by the little operation is great and often instantaneous; the danger *nil*. The pain produced by the procedure, though not quite *nil*, is very slight indeed, and possesses none of the terrors or dangers belonging to a direct cut through skin and other tissues down to the bone, which must necessarily in most cases involve the laying up of the patient, if he be not already laid up by the existing disease.

I may venture to suggest that many cases of sciatica, though I have not yet had the opportunity of trying it in such, seem to me to be amenable to an operation which would admit of making a longitudinal section of the sheath of the nerve without materially disturbing the skin and other tissues, or damaging the fibres of the nerve itself; so tension and pain would be removed, as has occasionally happened with the lesser operation of acupuncture.

For the cases I am indebted to the kindness and good memory of Mr. Armstrong, our house-surgeon, who, I may add, fully endorses my statements of the relief ensuing on the operation.

CASE 1.—A. A——, out-patient, Royal Berks Hospital. Syphilitic nodes in tibiæ; pain very severe in left one, and not relieved by iodide of potassium. Incised the periosteum in this leg, with instant relief. The relief has proved continuous.

CASE 2.—Wm. P——, aged about fifty. Pain and swelling over great trochanter on the left side; very lame from the tenderness on muscular action; very tender on pressure. Incised the periosteum. Relief instantaneous, and in a day or two he was walking about without any inconvenience.

CASE 3.—George L——, a boy. Periostitis on lower end of the femur. Incision on the inner side. Four days after the swelling was sensibly diminished. The operation was repeated on the outer side, the periosteum being incised in several places through one opening in the skin. Here I cannot report as yet an equal amount of benefit. In this case there was not a great amount of pain or tenderness.

CASE 4.—Anna K——. Node over right radius, in which there was much pain; well-marked syphilis. Several incisions through periosteum by one opening in the skin. Two days after she stated there was no pain, and that she has not felt so well for two months. After this constitutional treatment was commenced.

CASE 5.—Florence M——. Pain and thickening over great trochanter, the case being one of hip disease. Pain immediately relieved by the subcutaneous section.

CASE 6.—Alice H——. Pain in hip and knee; considerable thickening of the periosteum of the whole of left femur. Incised this membrane on three several occasions, each time with considerable, though not complete, relief.

CASE 7.—Emily H——. Anomalous pain about left hip-joint, without satisfactory evidence of disease in it. Some swelling and great tenderness over great trochanter. She was carried into the hospital, being quite unable to walk, and having been so for several weeks; two bed-sores on nates. Incised periosteum, with complete relief, and she was soon able to walk about.

CASE 8.—David W——. Had had pain in the left foot for some months, connected with an inflamed bursa, which had been relieved by free incision. Two months after relief and discharge from the hospital, he returned, complaining of fixed pain at a spot on the os calcis. Immediately relieved by subcutaneous incision of the periosteum at the painful spot.

CASE 9.—Josiah B——, aged about sixty. Paralysis of one arm and leg, partial; much pain in the heel, with feeling of tightness and tenderness, causing him to walk on his toes. Subcutaneous incision into the periosteum completely relieved these symptoms. Yours truly,

WM. W. MOXHAY,
Reading, March 21st, 1877. Surgeon, Royal Berks Hospital.

SCHOOL HYGIENE.

MUCH attention seems to be given at present in America to the subject of School Hygiene, and a legislative measure is being prepared which promises to have a most beneficial influence on the future boyhood of the country. The following recommendations of the Committee of the New York Medico-Legal Society, embodied in a report published this year, may be commended to the notice of educational reformers at home:—That the minimum age of admission to the public schools be made six years instead of four; that the maximum attendance at school for children under eight years of age be made three hours daily, with suitable intermissions; that provision be made by law for medical inspection and supervision of all schools, in order to secure the adoption and enforcement of sanitary rules; and that larger playgrounds be provided for children in public schools.

M.R.C.S.—He can give evidence at an inquest; but the same would not be professional testimony, neither could he claim a special fee, although by the vagaries of coroners an application is frequently successful.

WE have been asked to say that Letts, Son, and Co. (Limited), whose name as publishers of Diaries has for so long been associated with the Royal Exchange, have removed to 33, King William-street, London-bridge.

Dr. Holt Dunn is thanked.

LUNACY LAWS.

To the Editor of THE LANCET.

SIR,—In your leading article on "Lunacy Law Reform" in THE LANCET of March 24th there is a statement which, unintentionally, would be apt to mislead those who are not acquainted with the safeguards provided by law against the possible detention in a lunatic asylum of a person who is not insane. "It is all very well to say the medical superintendent exercises a further judgment when he admits the case," and the writer very justly proceeds to show how this is usually impracticable at the time when a patient is "brought to the portals of an asylum." But the fact is that the medical superintendent is *forced* to "exercise a further judgment when he" *certifies* the case to the Commissioners in Lunacy. Besides other medical examinations of persons admitted into a lunatic asylum, the medical superintendent *must in every case make a formal examination*, not less than two, and not more than seven, clear days after the admission of the patient, and thereupon make a statement to the Commissioners, not only as to the mental sanity or insanity of the patient, but also, in the latter case, as to the particular form of insanity which exists. Some safeguard is thus provided against the detention of one who is sane, but has been committed to a private lunatic asylum (supposing the case *possible*) by the erroneous diagnosis of the friends, and of two registered medical men acting independently of each other. Your obedient servant,

THE MEDICAL SUPERINTENDENT.
Grove Hall Asylum, Bow, March 27th, 1877.

Mr. Wilkinson.—To issue such a bill is a most unprofessional procedure. The person so offending cannot expect to be regarded in a friendly way by his neighbours. Unfortunately such offences are not committed only by those holding Irish qualifications.

R. E.—We think, as medical officers of the institutions named by our correspondent are not specifically mentioned in the clauses disallowing fees, they should be permitted to receive them, as is the custom.

WEST FIRLE UNION.

To the Editor of THE LANCET.

SIR,—Will you be kind enough to insert in your next number the following report.

About a fortnight ago an advertisement appeared in the local papers for a medical officer for the whole of the West Firle Union, Sussex, comprising eight parishes, the officer appointed to reside in one of the parishes. The union has always been divided into three districts, myself having been medical officer for the first and workhouse for fourteen years. On Monday, March 19th, the guardians at their meeting, instead of appointing one medical officer according to the advertisement, re-elected the officers of the second and third districts, and in my place appointed a young medical man, lately taken into partnership by one of the oldest practitioners in Lewes, who had considerable influence with the guardians. No reason was given me for the change.

I hope such cases are rare; but it shows what Poor-law medical officers have to put up with, badly paid, and treated worse. Such cases, I think, should always be exposed, which must be my apology for trespassing on your valuable space. Yours &c.,

Lewes, March 26th, 1877. M.R.C.S.

Andaman.—The matter should be brought before the notice of the guardians in the first instance, and that failing, the Local Government Board should be made cognisant of the circumstance.

M.A., M.B., (Bebington.)—Wagner: Archiv der Heilkunde, vol. vii., p. 461; vol. viii., p. 449. Nassiloff: Virchow's Archiv, Bd. l., p. 550. Hassenstein: Zeitsch. f. Parasitenkunde, ii., 3.

Consultant.—We believe it is customary for a medical practitioner, in attendance on a case requiring the assistance of a physician, to charge double his usual fee for consultation.

THE LATE SIR WM. FERGUSSON'S INSTRUMENTS.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to a paragraph in THE LANCET of the 24th March last, which mentions that certain gentlemen have received certain instruments as directed by the will of the late Sir Wm. Fergusson, Bart. It is true that these gentlemen have received the instruments as gifts; but your statement that they have been devised by will is erroneous.

I am, Sir, your obedient servant,
Bedford-row, W.C., April 3rd, 1877. G. A. GABRIEL, Executor.

BOARDING OUT PAUPER CHILDREN.

THE disposal of children born of pauper parents, or left chargeable to the rates, is a continuous source of anxiety. It is beyond question that the true policy of social prudence must be to depauperise them. Education in a workhouse means making that establishment the home. In after years children so trained revert to the poorhouse without compunction. Boarding with families of the industrial class is better; but the difficulty is to ensure proper supervision. We have already pointed out that the School Board machinery might be utilised for purposes of house visitation. Some of the obstacles in the way of efficient guardianship for these infants would be secured if a humane system of visiting could be devised. We have not much faith in the virtue of Poor-law guardianship. It is a very solemn red-tape business at the best. Charles Dickens pourtrayed the working of this form of officialism in colours which were scarcely too strong. There is, however, an opportunity for better and more kindly service under the ægis of the School Board system, if only that system can be rescued from the toils of the hobby-riders, and set to prosaic, but useful work.

Surgeon-Major Douglas is thanked. The communication will be noticed shortly, with many others relating to scurvy.

PROFESSIONAL DIFFERENCES.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 27th you kindly inserted a letter from me under the heading of "Country Poor-law Union Practice," relative to my application for an increase of salary to the Board of Guardians of the Stow-on-the-Wold Union. Circumstances which have since transpired prompt me to solicit a further publication of facts appertaining to professional etiquette in connexion therewith.

Previous to sending in my resignation to the Board, I had an interview with Mr. Hopgood, who is in partnership with Mr. Hayward, and who are the only medical men (besides myself) in practice here. In order to get the salary for the Loughborough district increased, I obtained from Mr. Hopgood the promise that he would not apply for the appointment either at the *existing* salary or at an increased one. He gave his word that he would not do so, excepting in the event of a stranger coming forward, and then only at an increased salary. The vacant appointments have been advertised unsuccessfully, the two or three who applied declining almost immediately. It has since been decided to divide the districts, and upon this Mr. Hopgood bases his intention of taking a portion of the parishes, ascribing to me as his reason that he "should not like to offend the guardians"! The correspondence between Mr. Hopgood and myself I enclose.

I remain, Sir, yours faithfully,

FREDERICK E. PEARSE, M.D.

Stow-on-the-Wold, March 20th, 1877.

[COPY.]

Stow-on-the-Wold, March 14th, 1877.

DEAR MR. HOPGOOD,—From the conversation I had with you on Monday last at Lower Swell, I gathered that you consider yourself at liberty to accept the offer of the Board of Guardians, and take the revised district of Loughborough. I think you must have forgotten the interview we had at your house previous to my sending in an application for an increase of salary, and, in the event of refusal, to tender my resignation. It was then arranged between us that you would not apply or accept the appointments, *even* at an increased salary, save and except to keep a stranger from coming into the place. The appointment was advertised, and no medical man was willing to take it at the salary offered. A revision of the districts has been deemed necessary, and I now call upon you to act up to your word given me during the interview we had at your house before I resigned the district. It is my intention, when the revision of the district is settled and confirmed by the Local Government Board, to apply for the appointments; and, as my qualifications in every respect come up to the standard prescribed by the Local Government Board, it would necessitate my being reappointed at the increased salary, provided you carry out the terms of your agreement with me. I am, dear Mr. Hopgood, yours very truly,

FREDERICK E. PEARSE, M.D.

P. D. Hopgood, Esq., Surgeon, Stow-on-the-Wold.

[COPY.]

Stow-on-the-Wold, Gloucestershire, March 20th, 1877.

DEAR SIR,—I was surprised and annoyed to receive your note of the 14th, in which you appear to blame me for not having acted up to my word; but you must allow me to remind you that the conversation we had at my house amounted to this, which was promised by me some long time ago—viz., "I would not accept the appointment as medical officer to the Loughborough district for less than your proposed increase," and when you were at my house you asked me if I would not accept the appointment at all. During the time a new medical officer was being sought after. My answer was, I could not promise, for I should not wish to *offend the guardians*; but I wished the appointments to remain as they were, and that I was anxious to do that which was right and just. The district now is proposed to be cut up, and I am invited to accept a part, not the whole, of the parishes, and unless I do so, I am positively assured on thoroughly trustworthy grounds that another man will be introduced. Therefore I consider I am entirely at liberty to act without any breach of etiquette or honour, as the re-arrangement has entirely nullified the agreement. I did intend to call, but have been so fully occupied. Remaining yours faithfully,

Dr. Pearse. P. DOWNING HOPGOOD.

*** We regret that Mr. Hopgood should have thought it right to act as he has done. After doing so well in supporting Dr. Pearse in his reasonable efforts to get a salary more proportioned to the work, it is a pity that he should have lent himself to a scheme which seems intended to defeat Dr. Pearse's object. It is a striking fact that even strangers would not look at the appointment on the terms advertised. This affords strong presumption that the guardians were acting parsimoniously, and it is well to resist such action even at the cost of offending.—ED. L.

A Consumptive Surgeon.—1. The mean temperature for the year in Melbourne, as deduced from a series of meteorological observations taken in the shade, and extending over a period of fourteen years, is 57·60°. This temperature closely resembles that of Lisbon. January and February are the warmest months, and June and July the coldest. In the last seventeen years the thermometer in the shade at Melbourne has 61 times risen to or above 100° F., the highest recorded being 109°, and during the same period has fallen 52 times to or below freezing point, the lowest being 27°. In summer the north winds are dry and often hot. The mean rainfall in the year is nearly 28 inches. The city contains a population of about 243,000.—2. Montserrat has a reputation for healthiness, and its climate is perhaps less inimical to European life than that of either of the two others named.

COST OF HORSES IN COUNTRY PRACTICE.

To the Editor of THE LANCET.

SIR,—I have three ponies, which do an average of 140 miles a week. I feed them on crushed oats and maize (4 to 1), a little hay in the winter, lucerne, wurzel, carrots, and raw potatoes. I have an acre of ground, which produces twenty-four bushels of oats, one rood of lucerne, one rood of sainfoin, one ton of wurzel; carrots, potatoes, and vegetables for house. The cost of the three ponies for twelve months is—

27 cooms (equal to 108 bushels) of oats, and crushing	£20 5 0
33 bushels of maize, and crushing ...	8 5 0
¼ ton of hay	3 0 0
Share of rent of acre	8 0 0
	£39 10 0

This county is flat. I get straw and chaff for the manure.

Yours faithfully,

March, 1877. L.R.C.P.

To the Editor of THE LANCET.

SIR,—Will you allow me to state for the information of a "Country Practitioner" my expenditure for provender for two horses and a pony during the year 1876? The pony, being used only for children, had little or no corn, but lived on bran, hay, and chaff.

41 sacks of oats	£30 15 0
3½ tons of straw	8 15 0
3½ tons of hay	21 0 0
4 sacks of beans...	6 0 0
73 bushels of bran	3 13 0
	£70 3 0

Faithfully yours,

March 29th, 1877. ANOTHER COUNTRY PRACTITIONER.

To the Editor of THE LANCET.

SIR,—I know to within a pound or so what the cost of my horses and carriages, wear and tear, have been for the last eighteen years. For the last ten or twelve years I have kept three and sometimes four horses for my work. I am perhaps rather extravagant in the number I keep; I frequently could do with one less than I do, but I prefer to drive a good horse in good condition at a good pace rather than the contrary. The keep of my horses during the whole of that time has never exceeded 17*s.* per week; in fact, it has ranged from 15*s.* to 17*s.* This is for oats, beans, hay, straw, carrots, meal, bran, vetches, and occasionally joisting out at grass; and at this expense none look better or do their work better than mine.

Yours respectfully,

March, 1877. A. C. C.

To the Editor of THE LANCET.

SIR,—Your correspondents are, doubtless, much obliged to those who have this week so kindly given their various expenses in feeding horses. If, however, "Rusticus" had, and others will hereafter, remember to give the *quantities* of oats &c., it would enhance the information greatly, adding the county they live in, whether roads are hilly &c., and average number of miles daily. Yours &c.,

March 31st 1877. CONSTANT SUBSCRIBER.

To the Editor of THE LANCET.

SIR,—Allow me to apologise for indistinct writing, and ask you to correct my letter. Instead of cwt., put co. (coomb), which is 2 cwt. 14 lb. for maize, and 2½ to 2¾ cwt. for beans. I have just bought my year's supply of maize at 13*s.* per coomb, of 2 cwt. 14 lb. Yours &c.,

April, 1877. M.R.C.S.

Dr. Kelly.—The instrument can be obtained (by order) from any of the microscope makers in London.

Mr. R. Wood.—Mr. Henry Smith has published more than one work on the subject of Disease of the Rectum, which includes Hæmorrhoids.

"DEATH FROM A FALL: ORANGE-PEEL."

To the Editor of THE LANCET.

SIR,—In addition to your valuable suggestions last week, under the above heading, as to the value of organising a staff of street orderlies for the systematic clearance of "every description of litter and dirt," I would make the following, it having special reference to the "orange-peel nuisance and peril":—That a short Act be passed, making the offence of throwing orange-peel on the pavement punishable by a small fine, or one day's imprisonment, as it appears that at present the police are powerless in the matter.

Yours faithfully,

March, 1877. A SUBSCRIBER.

TREATMENT OF NÆVUS.

To the Editor of THE LANCET.

SIR,—In reply to "M.B., Junior," in your impression of last week, I am enabled to recommend the use of injection of perchloride of iron. I cured a similar case of large size in a very young infant in the same situation (tip of the nose) by three or four injections, the resulting cicatrix being scarcely perceptible, and no disfigurement. Yours &c.,

April 2nd, 1877. M.B.

Mr. W. H. Thomas.—We are unable to say when the questions of the last Examination in State Medicine at Cambridge appeared in our columns. The index should be searched.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—It is high time to dispel that halo of glory which once surrounded it, and to paint the "East" in the sombre colours which it has of late years assumed. I do not mean to say that any intentional slight has been given to the medical branch of the service. All may have happened in the course of events; but if we compare what is being done for purely military men, the bonuses, increased pensions, permission to reside in England as part of service, and the like, which have of late been showered upon them, and if we compare the respective parts which each is called upon to play, I think the most prejudiced mind cannot avoid coming to the conclusion that we (the medical) have been not only shunted, but treated with an indifference as uncalled for as unmerited. Our duties are at all times—peace, war, pestilence, and famine—of a most onerous and responsible nature, and now duties are imposed on a medical man foreign to his education, his tastes, and his feelings.

As the existing mode of governing India renders an appeal here nugatory, it only remains to ventilate the subject in the home papers, and so by gradual steps force it upon the attention of Parliament. You, Sir, can help us by bringing to the notice of the medical schools the decaying prospects of the Indian Medical Service, its insufficient pensions, and the kind of work we are called upon to perform.

Yours &c.,

Feb. 3rd, 1877. FAIR PLAY.

BUGS.

To the Editor of THE LANCET.

SIR,—Perhaps some of your readers will kindly state what, in their opinion, is the best to use as a "preventive of bugs," and also what is the most useful chemical for destroying them when located in a large building, such as a hospital. Of course patients constantly being admitted, bring along with them these uncomfortable vermin, and I should take it as a great favour if I should be able by your suggestions to obtain a complete riddance of such troublesome tenants.

I am, Sir, your obedient servant,

March 31st, 1877. HABBERLEY.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Humphry, Cambridge; Dr. M'Dermott, London; Dr. Tibbits, London; Mr. Bird, London; Messrs. Letts and Co. London; Mr. Cheesewright, Rawmarsh; Dr. Moore, Preston; Mr. Porter, Fleetwood; Dr. Sargent, Shadwell; Mr. Saunders, Cambridge; Messrs. Harvey and Reynolds; Dr. Williams, Dieppe; Mr. Warren, London; Mr. Gadsden, London; Mr. Wood, Newcastle; Mr. Faulkner, London; Dr. Macewen, Glasgow; Dr. Wilson; Dr. Briggs, Colchester; Mr. Chicker, Yeovil; Mr. Stuart, Musselburgh; Mr. Horsford; Dr. Pearse, Stow-on-the-Wold; Mr. Birner, Macclesfield; Dr. Kelly, Liverpool; Dr. Field; Dr. Levinge, Athlone; Mr. Barron; Dr. Walker, Glasgow; Dr. Fyffe, Clifton; Mr. Gerald; Mr. Bird, Cambridge; Mr. Dolan; Mr. Kempe; Dr. Farrar, Morecambe; Mr. Merriman; Dr. Jones; Mr. Gibson; Mr. Cooper; Messrs. Creswick & Co.; Mr. Hay; Dr. Coghlan, Manchester; Mr. Post, Beyrout; Dr. Eberle; Mr. Denny, Stoke Newington; Mr. Evans, Llandovery; Mr. Fisher; Mr. Tallack; Mr. Green, Dover; Mr. Whidborn; Mr. Williams; Dr. Cunningham, Edinburgh; Mr. Mackey; Mr. Randle, Ivy Bridge; Dr. Smith, Kilburn; Mr. Douglas; Mr. Sproule, Frome; Mr. Binks, Waterfield; Mr. Pring, Pwllheli; Dr. Dale; Dr. Glasier, Lynn; Dr. Haviland, Bridgwater; Dr. Dunn; Dr. Buchanan, Glasgow; Dr. Wedgwood; Mr. Harrison, Ambleside; Dr. Warner; Mr. Kimpton, London L., Bunne; Omega; M.B.; A Medical Superintendent of Fifteen Years' Standing; M.R.C.S.; L. M.; A. C. C.; B. B.; Constant Subscriber; Union District Doctor; Habberley; A Subscriber; L.R.C.P.; Another Country Practitioner; Molar; Surgeon; Registrar-General of Edinburgh; A. P. G.; Æneas; E. A. C.; Medical Superintendent; Mata; Epsilon; T. H. M., Crawley; H. A., Kinloch; Andaman; The Registrar-General of Births and Deaths; Vox e Paludibus; M.A., M.B.; Dipsomania; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Harrison, Bow; Dr. Redmond, Gateshead; Mr. Hodden, Glasgow; Dr. Hawkes, Alton; Mr. Bond; Mr. Bolton; Dr. Duncan; Dr. Griffiths; Dr. Duke; Mr. Lawrence; Dr. Davies, Macstog; Mr. Hutchinson, Bow; Dr. Ellis; Mr. Jackson; Mr. Percy; Dr. Morelli, Naples; Dr. Bernays, Brixton; Mr. Sayer, Yatton; Mr. Spiers; Mr. Reynolds; Mr. Clark; Dr. Davies, Ebbw Vale; Dr. Thomas, Llanelly; Dr. Etheridge, Bromyard; Mr. Hird; Dr. Miller; Mr. Bennett; Mr. Batten, Gloucester; Mr. Whittle, Liverpool; C. H., Clapham; M.D., Burton-on-Trent; M. X., Barton; C. M. C.; W. P., Wrexham; M. A. K.; A. B., Petersfield; Surgeon, York; Sanitas; Medicus, Newcross; F. C. P., Weston-super-Mare; Ver, Derby; A. B. C., Leeds; C. R. E.; F. S. D.; Medicus, Oldham; E. J. W., Lymington; R. H. J.; M.D.; M.B., Edinburgh; Delta, Liverpool; F. F.; Medicus, Walworth; Surgeon, Bridgwater; Ozone; T., Nitin; Medicus.

New York Medical Record, Western Lancet, Boston Medical and Surgical Journal, Medical Temperance Journal, Preston Guardian, Herts and Essex Observer, Liverpool Mercury, Animal World, Financial Opinion, Manchester Guardian, Glasgow News, Nottingham Journal, Scarborough Daily Post, Newcastle Daily Chronicle, Leeds Mercury, Suffolk Chronicle, Argus, Yorkshire Post, Western Morning News, Sunderland Daily Post, Academy, Medical Press and Circular, and *Sanitary Journal for Scotland* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, APRIL 5TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall	Remarks at 8 A.M.
Mar. 30	30·05	N.W.	46	48	...	59	41	0·21	Cloudy
„ 31	30·15	W.	45	47	...	55	40	...	Fine
April 1	30·00	S.W.	48	50	...	55	45	...	Cloudy
„ 2	30·01	N.W.	43	47	...	58	43	0·17	Cloudy
„ 3	29·55	S.	48	51	...	58	45	...	Cloudy
„ 4	29·29	S.W.	50	54	...	62	50	0·43	Cloudy
„ 5	29·31	S.W.	45	48	...	55	42	0·35	Cloudy

Medical Diary for the ensuing Week.

Monday, April 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Adjourned Discussion on "Animal Vaccination"; after which a Clinical Meeting.

Tuesday, April 10.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gladstone, "On the Chemistry of the Heavenly Bodies."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Mr. T. Holmes, "On Direct Wounds of the Ureter."—Dr. James Andrew and Dr. Dyce Duckworth, "On a Case of all but universal Paralysis in a Child following Exposure to Heat, with complete Recovery."

Wednesday, April 11.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
HUNTERIAN SOCIETY.—7½ P.M. Council.—8 P.M. Mr. Jacobson, "On Incision of Hydrocele Antiseptically as a means of Radical Cure in certain cases."
EPIDEMIOLOGICAL SOCIETY.—8½ P.M. Discussion on Mr. Lawson's and Dr. Ely M'Clellan's papers on "Cholera."

Thursday, April 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Heat."

Friday, April 13.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Maunder, "On Double Valvular Osteotomy as a substitute for Excision of the Knee-joint" (living subject).—Mr. Christopher Heath, "On a Case of Subpericostal Resection of the Shaft of the Tibia"; "On a Case of badly-united Fracture of the Leg treated by the Excision of a Wedge by Linhart's Chisel."—Mr. Clement Lucas, "On Excision of the Lower Half of the Ulna for a Myeloid Tumour" (living subject).—Dr. Cayley (for Mr. Henry Morris), "On Excision of the Lower Ends of the Radius and Ulna for a Myeloid Tumour."
ROYAL INSTITUTION.—9 P.M. Mr. Spottiswoode, "On Electric Induction Experiments."

Saturday, April 14.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Dannreather, "On Chopin."

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